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A study was made in 1964 in Hartford, Connecticut, and Winston-Salem and Charlotte, North Carolina, of prospects for employment and upgrading of young male entry workers. Few companies hired workers without a high school diploma; the majority required experience. Personal contact, public employment service, gate hires, and advertisements were the major means of hiring. There was a positive correlation between size of company and formal training; management training was the most common offering in large companies; in small companies training was more likely to center on specific skills. Some companies, particularly in Hartford, had formal apprenticeship systems; formal inplant programs were for females, or blue collar workers, or for specific jobs; 32 companies made use of community facilities, especially for tuition refund programs. The large majority of blue collar workers learned on the job. Employers felt there was need for improved basic education, extended preemployment occupational training, enhanced motivation, extension of on the job training, a positive labor market policy, change in the image of service jobs, and improved guidance. (Appendixes include a guide for semistructured employer interview and a selected bibliography on industrial training.) (eb)

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GETTING HIRED, GETTING TRAINED

A Study of Industry Practices and Policies on Youth Employment

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U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
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Office of Juvenile Delinquency and Youth Development
in cooperation with the
PRESIDENT'S COMMITTEE ON
JUVENILE DELINQUENCY AND YOUTH CRIME

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FOREWORD

Employers prefer experienced workers, but how can a youth obtain experience if no one will hire him? Employers often criticize vocational training in the schools, but how much on-the-job training are they willing to undertake?

The unemployment rate for youth in the United States continues to be higher than for any other age group. In 1964, the jobless rate for 16–19 years olds was 4.3 times as high as the adult unemployment rate of 5.2; for youth 20–24 years of age, the rate was 2.2 times as high as the rate for adults. Each year, more youth are entering the labor market as a result of the "baby boom" after World War II. Many are unskilled and each year the demand for unskilled labor goes down.

Without gainful employment, neither youth nor adults can participate meaningfully in our society. Unless a youth is offered that opportunity, the chances of his becoming delinquent are considerably enhanced.

This 1964 study undertook to find out, in three communities, when and which employers would hire youth and what kinds of training they provided, under what conditions. It serves to highlight the problems youth face and to point to some possible solutions.

We hope this publication, along with others in this series on youth employment, will provide information and stimulate further study in this important problem area.

Bernard Russell
Director
Office of Juvenile Delinquency
and Youth Development

PREFACE

A nonprofit, nongovernmental agency, the National Committee on Employment of Youth concentrates exclusively on the problems youth face in preparing for and finding work. The Committee monitors national policies and programs to further opportunities for youth, provides research and information about the causes of and ways of dealing with youth unemployment; aids communities to develop and strengthen services to help youth vocationally; and deepens public understanding of youth unemployment.

The preparation of this document was supported by a contract with the Office of Juvenile Delinquency and Youth Development, Welfare Administration, U. S. Department of Health, Education, and Welfare, in cooperation with the President's Committee on Juvenile Delinquency and Youth Crime.

The views expressed in this document do not necessarily reflect the position and policy of the Department of Health, Education, and Welfare.

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The Youth-Work Program Review Staff is indebted to its Advisory Committee who helped to develop goals, policy, and priorities:

Roy W. Sorenson, General Secretary, YMCA of San Francisco, San Francisco, California—Chairman

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CONTENTS

Chapter — Page

Foreword ---------- ii

Preface ---------- iii

Acknowledgments ---------- v

1. The Scope of the Study ---------- 1
2. Hiring Policies and Practices ---------- 19
3. Training ---------- 45
4. Informal Training ---------- 65
5. Issues in Preparing Youth for Work ---------- 85

Appendix I: Guide for Semistructured Employer Interviews ---------- 103

Appendix II: Selected Bibliography of Recent Literature on Training in Industry ---------- 107

Chapter 1

THE SCOPE OF THE STUDY

INTRODUCTION

One of the major groups currently receiving attention in the "war on poverty" are youth who are out of school and out of work. With the proliferation of programs to rehabilitate members of this group and make them employable, there is a natural tendency to focus on their needs for basic education and vocational training. This emphasis is strengthened by current projections of the rising level of skill required of American workers and by proponents of structural theories of unemployment, who see training as the way to attain a better match between the skills of the unemployed and existing job vacancies.

No matter what the impetus, programs to raise skill levels can only be formulated on the basis of knowledge of how American workers are presently being trained. On this subject we are deplorably ignorant.

SOURCES OF TRAINING

There exists a voluminous literature on sources of training, most of which deals with specific institutional forms—apprenticeship, vocational education, technical institutes, junior colleges, and training by industry itself. The literature makes two things clear:

1. There are an ever-increasing number of occupations for which training is achieved through formal, higher education. "Virtually all of the occupations providing expanding employment opportunities in recent years have been those requiring long periods of education and formal training."[1]

The "Observer" of the *New York Times* symbolizes the problem in a more entertaining fashion. Commenting on the appearance of a newspaper advertisement for a senior vibration analyst, he points out the unhappy fate of the

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[1] Statement of W. Willard Wirtz, Secretary of Labor, U. S. Senate, *Nation's Manpower Revolution*, Hearings before the Subcommittee on Employment and Manpower of the Committee on Labor and the Public Welfare, 88th Cong., 1st Sess. Washington, D.C.: U. S. Government Printing Office, 1963, Part I, p. 7.

Not only are the professional, technical, clerical, and sales positions the fastest growing, but among manual occupations, only the most skilled group will expand as fast as total employment. Semiskilled jobs are expected to increase at two-thirds the rate of total employment, and unskilled jobs will decline relative to total employment. U. S. Department of Labor, *Manpower Report of the President and a Report on Manpower Requirements, Resources, Utilization, and Training*. Washington, D.C.: U. S. Government Printing Office, 1964, pp. 34 ff.

> . . . desperate job hunters who must have stumbled into this ad . . . and felt the will to fight drained out of them with the realization that enterprise is no longer enough.
>
> Not too many years ago, a hungry man with wit, gall, and negligible experience could fake his way into a good many of the positions he saw offered in the newspapers.
>
> "Sure, I can work a three-whelk lathe," the average man could bluff, knowing that he had a sporting chance to learn from watching the man at the next lathe, or from breaking the machine and watching the machinist repair it . . .
>
> It is ridiculous to think of this same man nowadays saying "Sure, I can analyze vibration" . . .[2]

2. For the noncollege-graduate work force,[3] our major institutions account for relatively few trained workers. At the top technical level, there begins the admixture of ways of acquiring skill that is characteristic of the entire continuum. Even though technical institutes have expanded both in size and number, they are far from providing a significant portion of the training of technicians.[4]

Junior Colleges

In 1963, of the 800,000 students enrolled in more than 700 junior colleges, only one-quarter were in occupationally oriented curricula. Moreover, such training is unavailable to most people and limited in many instances to those able to finance tuition costs.[5] Junior colleges have been pressured by the enormous drive toward college entrance into expanding their transfer functions—that is, the provision of the first two years of undergraduate work—to the detriment of their terminal curricula, which provide complete units of training for the technical occupations.[6]

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[2] Baker, Russell, *New York Times*, February 18, 1964.

[3] The noncollege graduates constitute about 80 percent of new entrants into the labor force at the present time. Six out of ten enter the labor force directly from high school (either as graduates or dropouts), another two take some additional training, and only two out of ten complete college. U.S. Congress, *January 1963 Economic Report of the President.* Hearings before the Joint Economic Committee, 88th Cong., 1st Sess. Washington, D.C.: U.S. Government Printing Office, 1963, Part I, p. 211.

[4] U.S. Office of Education, *Education for a Changing World of Work.* Washington, D.C.: U.S. Government Printing Office, 1963, Appendix I, "Technical Training in the United States."

[5] More than half the enrollees are in California and New York, with another 20 percent in Pennsylvania, Illinois, and Michigan. Venn, Grant, *Man, Education, and Work: Postsecondary Vocational and Technical Education.* Washington, D.C.: American Council on Education, 1964, pp. 88-89.

[6] For a discussion of the focus on the transfer function, see Medsker, Leland L., *The Junior College: Progress and Prospect.* New York: McGraw-Hill, 1960.

Armed Services Training

Members of the Armed Services all receive training to some extent or another, but the exact utilization of service-learned skills in civilian life is difficult to estimate. The best study we have dates back to 1957 when some 17 percent of a sample of separated airmen succeeded in getting jobs considered to be related to their Air Force experience. The largest single group were in radio and radar maintenance. There are several problems involved here. In the first place, there are broad contrasts between the military and civilian skill structures that militate against ready transferability of skills. Furthermore, the trend is toward increasing dependence on career men, with the result that military training is a diminishing source of skill for the civilian economy. Some skills learned in the service are rejected by the trainees themselves when they make new occupational choices in civilian life. And, finally, a large proportion of young men never have access to military training of any kind because they fail to meet the physical or mental standards for entering the service.[7]

Apprenticeship

The sources of skill in the traditional blue-collar occupations are even more obscure than in the technical fields. All evidence points to a decline in apprenticeship, the traditional method of training skilled craftsmen. Apprenticeship never gained a strong foothold in the United States, but since World War II it has grown still weaker. From 1950 to 1960, there was a decline of about 25 percent in the number of apprentices, although the U.S. Department of Labor has estimated a 20 percent increase in the number of skilled craftsmen needed in the period of 1960 to 1970. In 1962, about 360,000 males graduated from high school and entered the labor force, but only about 55,000 apprentices entered training. Some of the reasons why apprenticeship is declining and how the gap is filled, will be discussed at greater length in the course of this report. Purely in numerical terms, however, a 1963 Bureau of Labor Statistics study showed that about 65 percent of all craftsmen learned their skills through informal, on-the-job training. Furthermore, there is a concentration of apprentices, with 65 percent in the building trades, 8 percent in printing, and 15 percent in the metal trades, as of 1962.[8]

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[7] See Wool, Harold, "The Armed Services as a Training Institution," *The Nation's Children*, Edited by Eli Ginzburg. New York: Columbia University Press, 1960, Vol. 2, pp. 118-185; U.S. Department of Labor, Office of Manpower, Automation and Training, *Young Workers: Their Special Training Needs*. Manpower Research Bulletin No. 3. Washington, D.C.: U.S. Government Printing Office, 1963, p. 18; and Venn, Grant, *op. cit.*, p. 110.

The Manpower Report of the President for 1964 makes a plea for the extension of formal training, substantiated by the statement: ". . . all our public and private schools, and the Armed Forces combined, have provided some form of occupational training to only about half of the American workers."[9]

Vocational Education

One response to these facts is the attempt to improve the nature and scope of public vocational education, specifically in 1963 through a new Federal Act.[10] Whatever the current shortcomings of vocational education or its promise for the future, it would have a long way to go before filling the training gap all by itself. Apart from business education, Venn estimates that less than 6 percent of high school graduates complete a program of occupational preparation at the present time.[11] Vocational school enrollments for 1960-61 totaled approximately 4 million, of which about half were adults. Less than a million were involved in trade and industrial education, of which only approximately 300,000 were in-school youth.[12]

Using the 1960 census data, it has been estimated that only about 2 percent of the 15-19 age group was enrolled in trade or industrial education, compared to 31 percent of the labor force composed of industrial workers. Put another way, the disparity between the number employed in manufacturing and construction and those enrolled in related vocational training is estimated at a ratio of 444 to 2.[13] In the service area, vocational education has been slow to expand even though these occupations are growing.

Manpower Development and Training Act and Area Development Act

In recent years, the Federal Government has undertaken more through the enactment of the Area Redevelopment Act (1961) and the Manpower Development and Training Act (1962). The number of trainees involved in various aspects of the program through November 1963 was as follows:

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[8] Groom, Phyllis, "An Assessment of Apprenticeship," *Monthly Labor Review* 87 (April 1964), pp. 391-395.

[9] U.S. Department of Labor, *Manpower Report of the President, op. cit.*, p. xiv.

[10] For a complete review of the current and projected situation in vocational education, see *Education for a Changing World of Work, op. cit.*; for the arguments for expansion of vocational education in a briefer form, see Levitan, Sar, *Vocational Education and Federal Policy*, Public Policy Information Bulletin. Kalamazoo, Michigan: W. E. Upjohn Institute for Employment Research, May 1963.

[11] Venn, *op. cit.*, p. 83. About 1.8 million students take business courses in high school, but an unknown number are enrolled only for one semester for avocational purposes. *Ibid*, p. 80.

[12] *Education for a Changing World of Work, op. cit.*, p. 47.

[13] *Ibid*, p. xvii.

MDTA:	Institutional Training	66,000	
	Demonstration Projects	30,000	
	On-the-job Training	6,000	
	Total MDTA		102,000
	ARA		26,000
	Total MDTA and ARA		128,000

Although a number of imaginative projects have been undertaken under the special demonstration provision of MDTA, the bulk of training offered has been run-of-the-mill. Office occupations, machine operating, nursing, automobile mechanics and welding have together accounted for half of the total training. The small number of on-the-job trainees reflects administrative problems, as well as some lack of enthusiasm on the part of labor and management.

Perhaps the most serious criticism of these programs to date has been the underrepresentation of the hard-core unemployed and of young workers among the trainees. For example, although workers under 19 comprised 15.6 percent of the unemployed in 1962, only 6.4 percent of MDTA trainees were under 19. Similarly those with a high school education and relatively brief periods of unemployment were more numerous among trainees than among the unemployed population.[14]

Putting together what we know about preemployment training, the following picture emerges. The largest number of new occupations are those requiring college education as a base. While the blue-collar work force has declined proportionately to the total work force, the skill requirements within blue-collar work have risen. Nevertheless, because of the decline in apprenticeship and the small role played by formal training institutions, including vocational education, and by special programs, training of the blue-collar work force has been largely accomplished on the job.[15]

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[14] For a good brief description of the effects and problems of this legislation, see Levitan, Sar A., *Federal Manpower Policies and Programs to Combat Unemployment.* Kalamazoo, Michigan: W. E. Upjohn Institute for Employment Research, 1964, pp. 14-30.

[15] There is one other source of skill worth mentioning—the historical reliance on immigration. Since World War II, the number of immigrant workers entering the United States in any single year represented a small proportion of the total labor force. Nevertheless, in that period, about one out of every six immigrants was reported as a skilled worker in contrast to one out of every eight American workers employed as craftsmen. "The proportion of all immigrant workers classified as professional and technical workers has been consistently higher than the percentage of American workers classified in these occupations for every year since 1947. For skilled workers, this has been true since 1949." U.S. Department of Labor, Office of Manpower, Automation and Training, *Manpower and Immigration,* Manpower Report No. 4. Washington, D.C.: U.S. Government Printing Office, 1962.

On-the-Job Training

The Secretary of Labor has been quoted as saying that "private industry is probably the nation's second largest developer of skills" (that is, next to the educational establishment). The Secretary estimated that 2.6 million workers were being formally trained in 1962, but concluded that formal training represents only a small part of the total carried on in industry, and that little is known about the extent of informal training, or how workers acquire their skills.[16]

More specifically, the same data have been interpreted to show that:

> Formal training . . . was provided by fewer than one in five establishments—primarily the larger companies. Furthermore, much of the training was limited to specific occupations (often supervisory or managerial jobs) or to special subjects.[17]

Furthermore, ". . . those enrolled in programs involving a fairly specific industrial skill numbered fewer than 400,000."[18]

Estimates concerning the extent of training in industry in terms of dollars are confusing when they are not downright misleading. A survey by Stanford University reports that national records of appropriate data are nonexistent, with estimates ranging as high as $30 billion per year, but without any basis in reliable or comparable data.[19] The problem arises both from the reluctance of organizations to calculate or report such expenditures.[20]

A study by Jacob Mincer,[21] attempted to estimate the total national investment in training. Mincer first estimated the cost of schooling, not only in direct outlays but also in "opportunity costs" such as foregone earnings of students. He next attempted to make a similar estimate for on-the-job training, broadly defined to include "learning by experience." Disregarding any judgment of the validity of his methods, he arrived at a figure of $13.5 billion for the "opportunity costs" borne by male workers. (Note that this was definitely not an estimate of industry outlay.) To this he added a parallel figure ($1.6 billion) for training costs incurred by women and $1.4 billion for training expenditures in the Armed Forces, for a total of $16.5 billion. In his own words, "Possibly the largest source of downward bias (is) . . . the omission of costs of training which are borne by firms."[22] His attempt to estimate this came to naught.

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[16] U.S. Congress, *January 1963 Economic Report of the President, op. cit.*, p. 211.

[17] *Manpower Report of the President, op. cit.*, p. 71.

[18] U.S. Department of Labor, Bureau of Apprenticeship and Training, *Training of Workers in American Industry.* Washington, D.C.: U.S. Government Printing Office, 1964, p. 2.

[19] Stanford Research Institute, *Training in Industry.* Palo Alto, California: The Institute, 1962.

[20] Oscar N. Serbein, in a study of 2,800 companies found that only 35 companies replied to the question on expenditures, and that the data on costs were not only difficult to ascertain, but equally difficult to interpret because of the lack of standardized methods of calculation. Some companies included only the salaries of staff members assigned to training, others included almost all supervisory time devoted to breaking in new employees, plus wages of trainees, etc. The answers given by the 35 companies, all of which were in the largest category, included in the survey (over 10,000 employees), ranged from $15,000 to $15,000,000. With per capita estimates showing such wide variation, the author decided to abandon any attempt to analyze cost. *Educational Activities of Business.* Washington, D.C.: American Council on Education, 1961.

[21] Mincer, Jacob, "On-the-Job Training: Costs, Returns, and Implications," *Journal of Political Economy* 70: 50-73, October 1962 (Supplement).

> All these heroic attempts to estimate firm costs add up to an uncomfortable range of uncertainty when it comes to answering the question: how much of firm costs should be added to the estimates of foregone incomes of workers? It is possible that billions of dollars are involved, but it is not clear how many.[23]

Mincer, then, far from furnishing an estimate of industry outlay on training, has, like others attempting this task, clearly stated the impossibility of arriving at such a figure from available data.

However, Mincer's figure of $16.5 billion was used as a basis for a widely quoted $17 billion figure. This appeared in the Chase Manhattan Bank's publication, *Business in Brief,* for November 1962, in a feature article entitled "Education by Business." In this discussion of the challenges confronting business in absorbing the unprecedented number of new job applicants predicted for the coming decade, it was stated that America's second huge education system, education of employees by business, has been documented very little until recently. "According to the best estimate available, some $17 billion of resources will be devoted to these activities this year." This figure was repeated in the *Nation's Business* the following June, with the words "of resources" omitted.[24] It is not surprising that the statement was interpreted as the sum employers alone are spending to train workers.

Although scholarly attempts to measure the amount employers are investing in training have not resulted in precise estimates, it is evident from company reports that sizable sums are involved. For example, eight of the 35 companies in the Serbein study reported training expenditures of over $5 million and one company reported spending $30 million.[25] Michigan Bell Telephone Company in a 1957 issue of its company news mentions an annual expenditure of $2 million for classroom training of its employees.

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[22] *Ibid,* pp. 58-59.

[23] *Ibid,* p. 62.

[24] "Jobs for the Future: How the Challenge Can Be Met," *Nation's Business,* 51 (June 1963), p. 32.

[25] Serbein, *op. cit.*

Such individual company reports are numerous; but apart from any estimates of amount expended, the more important question is what it all adds up to for the workers involved. Mincer suggests two provocative conclusions—first, that "the opportunity costs of on-the-job training per male are almost without exception somewhat higher than costs of a comparable increment of schooling." And, second, that ". . . on-the-job training is a larger quantity the higher the level of education . . . school education is a prerequisite, a basis on which to build further, more specialized training."[26] Such conclusions imply that formal education is at once the least expensive to the workers and the most useful for taking advantage of opportunities to learn on the job.

If one is interested in the fate of young workers, these conclusions imply as well that those who have achieved higher levels of education have more opportunity, a truism that sometimes obscures its opposite—that young people who cannot make the grade in school are also disadvantaged first of all in gaining employment, and secondly in getting training on the job if they do succeed in finding one.

In the current decade, young workers are expected to constitute almost half the projected 12.5 million net increase in the labor force. Their difficulties in finding employment are evidenced, not only by an unemployment rate double the national average, but also by the fact that in October 1963, about 730,000 young people under 22 were recorded as being out of school and looking for work.[27]

FOCUS OF THE STUDY

The National Committee on Employment of Youth, because of its concern with the rising tide of youth unemployment, undertook a study in early 1964 of three labor market areas, to document the prospects and problems of young workers in regard to the availability of employment and the chances for upgrading. The focus of the study is the relationship of these two variables to various types of training and patterns of skill acquisition. Since the agency's interest is chiefly directed toward the noncollege-educated youth, the study includes relatively little discussion on routes of entry or training for technical, professional, sales, and managerial workers. The data reported deal chiefly with young workers entering the labor market directly from high school, following either graduation or dropout.

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[26] Mincer, *op. cit.*, p. 59.

[27] Perrella, Vera C., "Employment of High School Graduates and Dropouts in 1963," *Monthly Labor Review*, 87 (May 1964), pp. 522-529.

The emphasis in the study is on male entry workers for the following reasons:

1. Males will comprise the majority of the new jobseekers to be absorbed in this decade. One of the most interesting changes in the postwar years in the composition of the labor force has been the increasing proportion of women workers. But the next five years will see a dramatic shift.

> Men should comprise more than half the net increase in the labor force during the next half-decade (as compared with one-third to two-fifths in recent years); and within ten years this proportion should rise to about two-thirds.[28]

The reasons for this shift are that, first, the labor force participation rate for the female age group 45-54 is now fairly constant and, second, girls born in the population boom of the forties, and who worked during their teens, will be leaving the labor force during the normal child-bearing years and will return only after completion of family formation.

2. Male unemployment will be a larger factor to reckon with in the next few years because many industries with a largely male labor force (such as mining, iron and steel manufacturing, petroleum refining, railroads, shipping, and meat products) have been in a downward trend in employment. Of those industries where increased demand may offset increases in productivity at a rate likely to expand employment, only construction, printing, and trucking are blue-collar, male-dominated fields, and they are all fields where youth have difficulty in obtaining entry. Expanding employment in white-collar industries is projected—especially in banking, insurance, and trade, fields in which women predominate.[29]

3. The great majority of entry jobs for girls are in the clerical occupations. High school training is more functional for these jobs than for any others, and the patterns of employment are well-known.[30] The study, therefore, will not dwell on the prospects of female high school graduates, but it will discuss young female dropouts, who are probably the most seriously disadvantaged of all entry workers.

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[28] *Manpower Report of the President, op. cit.*, p. 37.

[29] U.S. Department of Labor, *Technological Trends in 36 Major American Industries.* Study prepared for the President's Committee on Labor-Management Policy. Washington, D.C.: U.S. Government Printing Office, 1964.

[30] Perrella, *op. cit.*, p. 523.

THE THREE LABOR MARKET AREAS

The three areas in which data were gathered were Greater Hartford, Connecticut; Forsyth County (Winston-Salem), North Carolina; and Mecklenburg County (Charlotte), North Carolina. Connecticut and North Carolina were chosen for study chiefly because each has developed a State network of vocational schools differing in important respects from the conventional programs operated by city school systems. The three specific labor market areas were chosen mainly because of community interest and willingness to participate.[31] All are relatively prosperous and each has a citizens' development unit. The Community Renewal Team of Greater Hartford was organized in 1962 to coordinate an attack on social problems in the "All-American City." Membership includes all facets of the community and is aimed at penetrating the education-employment-housing-family-neighborhood "cycle of despair" among the poor. Winston-Salem and Charlotte are participants in the North Carolina Fund, a statewide foundation also directed at problems of poverty. In Winston-Salem the fund operates through the Commission on Experiment and Self-Reliance which hopes to coordinate the heretofore fragmented programs of social agencies. In Charlotte, the group is known as the Charlotte Area Fund. In both communities a variety of programs were underway by the end of 1964.

In all three communities the Chamber of Commerce agreed to sponsor the study and furnished invaluable assistance in introducing the study team to the community, in calling for the cooperation of its members, and in actually arranging appointments for interviews.

The figures in Table 1, Selected Demographic and Economic Characteristics, were chosen to point out similarities and differences among the three communities. Hartford is about twice as large as Charlotte, and Winston-Salem is somewhat smaller than Charlotte. Family median income for the total population is significantly higher in Hartford, paralleling a traditionally higher wage pattern. The difference between Charlotte and Winston-Salem may also be the result of higher wages in Charlotte, at least for white workers.

In all the communities there is a striking difference between the median income of the total population and that of nonwhite families; lower nonwhite income affects fewer people in Hartford, since the nonwhite population is relatively much smaller. The higher nonwhite income in Winston-Salem, compared to Charlotte, probably represents historical opportunity in manufacturing, which did not develop in Charlotte. The largest single group of manufacturing workers in Charlotte is in the textile industry, which has traditionally been closed to Negroes, except for menial jobs.

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[31] As an example of community awareness of the need for data, James K. Batten of the *Charlotte Observer* wrote: "No community can intelligently plan an up-to-date program of vocational education until it has surveyed the attitudes of its own employers on these matters. Such a survey has not been conducted in Charlotte, and until it is, planning will be based mostly on speculation." August 28, 1963.

In all three communities, one finds the mixture of attitudes and practices regarding integration that can be expected in a time of rapid social change. In Hartford, many firms, particularly in manufacturing, have had an integrated work force for many years. However, because of traditional patterns of discrimination, Negroes in the past did not have access to skilled trades, and succeeding generations therefore lacked the kind of personal contact that was often essential for acquiring skill. There are now attempts to overcome these deficits through special training and employment programs, including industries that are dominated by white-collar occupations, such as insurance.

TABLE 1

SELECTED DEMOGRAPHIC AND ECONOMIC CHARACTERISTICS OF GREATER HARTFORD, CONNECTICUT; FORSYTH AND MECKLENBURG COUNTIES, NORTH CAROLINA

	Greater Hartford	Forsyth (Winston-Salem)	Mecklenburg (Charlotte)
Population, 1960 Census	525,207	205,830	272,111
Percent Nonwhite	5.2	24.0	25.0
Median Family Income, 1959			
Total population	$ 7,187	$ 5,549	$ 5,632
Nonwhite	4,417	3,254	2,904
Employment, September 1962	252,990	76,390	125,390[a]
Manufacturing	92,940	38,775	28,590
Nonmanufacturing	160,050	37,615	96,800[a]
Percent manufacturing of total employment	36.7	50.1	22.8
Unemployment rate, spring 1964	4.2	4.0	2.8
Blue-collar and service employment, 1960 Census —Skilled craftsmen as percent of total blue-collar and service employment	30.2	20.9	21.3
Percent increase in employment, 1950-1960			
Manufacturing	25.5	27.2	28.4
Nonmanufacturing	29.3	28.7	38.8

[a] Estimate

Sources: U.S. Census of Population, 1950; General Characteristics: Connecticut, II PB (7), Table 35; North Carolina, II PB (33), Table 35.

U.S. Census of Population, 1960; General Social and Economic Characteristics: Connecticut, PC (1) 8C, Tables 74 and 75; North Carolina, PC (1) 35C, Tables 74 and 75.

Connecticut Labor Department, Employment Security Division, *Hartford Labor Market Letter.*

North Carolina Employment Security Commission, *Winston-Salem Area Labor Market News.*

We have already pointed out the somewhat better economic position of Negroes in Winston-Salem compared with Charlotte. In both cities, attempts are being made to integrate work forces; there is evidence of somewhat more rapid progress in this regard in Winston-Salem. Both cities have desegregated almost all public facilities.

Industrial Composition

The most striking difference among the communities is in their industrial composition. Winston-Salem's workers are evenly divided between manufacturing and nonmanufacturing enterprises, whereas Hartford and Charlotte have a much heavier emphasis on nonmanufacturing. In Hartford, this reflects the importance of the city as an insurance center and to some extent as a regional focus for trade. Charlotte is a regional center for the distribution of many nationally marketed products.

The unemployment rate in all three communities is lower than the national average. Charlotte has the lowest—2.8 percent, with Winston-Salem at 4.0 percent, and Hartford at 4.7 percent. With the trend toward growing employment in the nonmanufacturing sector, Charlotte's industrial composition probably accounts for its lower rate; it never had a large number of manufacturing workers who would now need retraining.

Although Winston-Salem has the largest proportion of manufacturing, union membership is lower than in Hartford, where about half of all manufacturing workers are organized. Winston-Salem has about 12,000 union members, of whom 3,500 are teamsters. Union organization seems negligible in Charlotte, both because of its industrial composition and for historical reasons.

The communities are strikingly different in the size of their business establishments. Winston-Salem is the leading manufacturing city in North Carolina and is dominated by several very large firms. In three industries—cigarettes, hosiery, and knitwear—the single largest companies in the world are located in Winston-Salem. Charlotte, on the other hand, has only one plant employing over 2,500 workers and the single largest employer in the city is city government itself.

In Hartford, the manufacturing sector is dominated by aircraft and fabricated metalworking, with many small satellite firms attached to the aircraft industry. Taken together, these employed 52 percent of all manufacturing workers in the city in 1962. This predominance accounts for the difference in the proportion of craftsmen between Hartford and the North Carolina cities. The Charlotte blue-collar work force is relatively small but the proportion of skilled workers within that group is the same as in Winston-Salem, with its mass production of manufactured goods.

The three communities had somewhat different growth rates in employment between 1950 and 1960, with Hartford and Winston-Salem showing very similar increases, and Charlotte showing a significantly higher rate of growth in nonmanufacturing employment than either of the other two. For the period since 1960, there are some suggestive figures on employment changes between 1962 and 1964. Both Hartford and Winston-Salem dropped about 400 in manufacturing employment during that time, but whereas Hartford's increase in nonmanufacturing was not quite large enough to cover the manufacturing loss ,Winston-Salem's nonmanufacturing gain was about five times its manufacturing loss. Exactly comparable data are not available for Charlotte but in that city, during the two years in question, 112 new firms employing 2,430 people were established.[32] One can infer that whereas Hartford has entered a period of relative stability of employment, Winston-Salem is expanding and Charlotte is expanding even faster.

Higher Education and Post High School Facilities

For post high school education and training, Hartford has one complete university, as well as a local branch of the University of Connecticut. In addition, there are two small liberal arts colleges, a seminary, and a junior college. One of the State's two two-year technical institutes is also located in Hartford (the Hartford State Technical Institute); and the Albert I. Prince Regional Vocational-Technical School, one of 14 State-supported institutions, offers post high school trade training. Both of these institutions are housed in the same building, but have different organizations and curricula.

The Technical Institute graduates about 100 students a year in engineering technology and related fields. The Vocational School, in 1963, had an enrollment of about 600 regular day high school students, 300 apprentices taking related training, and about 1,500 students in adult education. Students are all accepted at the tenth grade level, and most of the trade courses take three years to complete. With few exceptions, the 13th and 14th year programs offered by the school are for the training of academic high school graduates. There is some variation in the time required for training. Barbering, for example, is a one-year trade course, completion of which does not entitle the student to a high school diploma.

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[32] Connecticut Labor Department, Employment Security Division, *Hartford Labor Market Letter.* October 1962; Employment Security Commission of North Carolina, *Area Labor Market News, Forsyth County,* December 1963; Charlotte Chamber of Commerce, *Summary Reports. 1962 and 1963.*

North Carolina's concern for expansion of vocational education facilities has been merged in recent years with the community college movement. In 1958, enabling legislation was passed to encourage the growth of Industrial Education Centers under the Vocational Education Office of the State Department of Public Instruction. These were initially operated by local boards of education, and some, like the one in Winston-Salem, were used for high school vocational education as well as for adult trade training. In 1963, the State law was changed to shift the Industrial Education Centers into the Community College office of the Department of Public Instruction, and separate boards were established at the local level. The Centers are now to be used only for the education and training of persons over 18 not enrolled in secondary school; the goal is eventually to make each Center into a community college. At the present time, the name "Industrial Education Center" is maintained for institutions offering only basic education and trade courses. If a two-year technical program is available, it is called a technical institute; if it also has a two-year transfer curriculum, it becomes a community college.

In Winston-Salem, the Forsyth Technical Institute is the outgrowth of one of these State units. In 1963, it had 130 full-time high school students, who are being phased out under the new regulations; 110 students in full-time day trade or technical courses; and 125 taking a full program in the evening school. In addition, about 3,000 students were enrolled during the year in short-term courses. Winston-Salem also has three colleges (one, an all-Negro institution) and a Bible school.

In Charlotte, an Industrial Education Center was combined with a formerly all-Negro junior college to form the new Piedmont Community College. In the fall quarter of 1963, Piedmont had an enrollment of 1,911, with an additional 450 enrolled in adult education evening courses and 1,000 in extension courses. Charlotte has four additional colleges, one, a private, all-Negro institution, and another, a newly formed unit of the State University that was until recently a city-supported junior college.

Public Schools

The dropout rate in Hartford is about 36 percent. In Charlotte, it is 33.8 percent and in Winston-Salem, 40.1 percent.[33] Each city school system has some vocational offerings at the secondary level. In Hartford and in Winston-Salem, these are mainly the ones already described above. Winston-Salem has several additional trade courses in the predominantly Negro high schools. Charlotte has a somewhat greater spread of offerings, but not a very large enrollment in trade and industry courses. Both North Carolina cities have a small number of students in industrial work experience curricula. All cities have distributive education students and offer a complete sequence of training in clerical occupations, and all have some type of high school work experience program. The details of these offerings will be discussed at greater length in Chapter 2.

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[33] The Hartford rate is somewhat understated relative to Winston-Salem and Charlotte because it is calculated from ninth grade rather than fifth grade enrollment.

Manpower Development and Training Act Programs

Hartford has had 35 training courses for the unemployed and underemployed since May 1, 1961, of which 34 have been supported by MDTA funds. Of 698 people who entered, 539 completed the courses. Because of the type of shortages in the area, most of the courses have been for industrial occupations, such as machine operators and automobile mechanics.[34]

Hartford also received a grant of $1.1 million from MDTA in January 1964 to train about 2,000 area residents. It is estimated that 860 youth and 1,080 adults will receive training in approximately 30 different courses with emphasis on nonmanufacturing occupations.

Winston-Salem had had only one MDTA program in sheetmetal mechanics with 13 people enrolled. Charlotte has had several programs, of which two have been completed, two have been approved and are awaiting funds, and an additional three have been proposed but not yet approved.[35] A variety of occupations is represented in the Charlotte programs, including stenographers, machine operators, draftsmen, and automotive mechanics.

THE STUDY SAMPLE

The choice of a sample for this study was dictated largely by the focus on training. Rather than attempt a random selection either by size or by industry, it was decided to interview all of the large employers in each community, since they are more likely to offer formal training programs. Tables 2 and 3 show coverage of the study by type of industry and size of establishment. The coverage of the sample relative to numbers of workers in each area is as follows (data available by county only in North Carolina):

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[34] For a complete listing, see Connecticut Labor Department, *Community Action Programs: Summary of Training Courses, February 1, 1964*, Report VIII, Training Coordinating Committee.

[35] Employment Security Commission of North Carolina, Bureau of Employment Security and Research, *Status of MDTA Projects, Statewide Summary*, March 17, 1964.

	Greater Hartford	Forsyth (Winston-Salem)	Mecklenburg (Charlotte)
Total number of workers employed by firms in study	98,884	42,613	28,486
Manufacturing	56,472	32,613	9,636
Nonmanufacturing	42,412	10,000	18,850
Percent manufacturing workers of total sample	57.1	76.5	33.8
Percent manufacturing workers of total employed (1962)	36.7	50.1	22.8

Nonmanufacturing workers in Hartford are somewhat understated in the study, mainly because only the three largest insurance companies were included. Patterns of employment tend to be similar in all insurance firms, and there seemed no justification for duplicating interviews in this industry.

The representativeness of the sample is poorest in Winston-Salem because the four largest manufacturing firms included in the study together employ almost 28,500, more than one-third of all employed workers. The few large units in nonmanufacturing are in air transportation, hospital, and government, and these were covered in the study. However, in order to include a significant additional number of workers in nonmanufacturing industry, it would have been necessary to add hundreds of interviews of small companies engaged in construction, personal services, and trade.

The Charlotte sample represents a better approximation of the work force, mainly because units in manufacturing and nonmanufacturing both tend to be small. This is evident from the fact that it took twice as many interviews in Charlotte to cover only two-thirds as many workers as in Winston-Salem.

Many of the variables—hiring of youth, access to employment, and training, for example—have been studied in relation to size and type of industry.[36] The findings of other studies are referred to in the text for verification and support for generalizations that might otherwise be inappropriate in the absence of a random

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[36] One training study picked out a stratified, random sample of durable goods manufacturers in Massachusetts, only to find that failure of the small companies to cooperate resulted in the loss of about 17 percent of the original sample. Benson, Charles S., and Lohnes, Paul R., "Skill Requirements and Industrial Training in Durable Goods Manufacturing." *Industrial and Labor Relations Review*, 12 (July 1959), pp. 540-553.

TABLE 2

STUDY SAMPLE
NUMBER AND PERCENT OF ESTABLISHMENTS BY INDUSTRIAL CLASSIFICATION AND AREA[a]

Industrial Classification	Total		Greater Hartford		Forsyth		Mecklenburg	
	Number	%	Number	%	Number	%	Number	%
Manufacturing	129	65.8	51	72.9	24	55.7	54	65.1
Nonmanufacturing	67	34.2	19	27.1	19	44.3	29	34.9
Trade	15	7.7	6	8.6	3	7.0	6	7.2
Financial	11	5.6	5	7.1	2	4.7	4	4.8
Transportation	10	5.1	1	1.4	4	9.3	5	6.0
Communication	4	2.0	1	1.4	1	2.3	1	1.2
Utility	2	1.0	1	1.4	0	—	2	2.4
Services	14	7.2	2	2.9	5	11.6	7	8.5
Construction	7	3.6	2	2.9	2	4.7	3	3.6
Government	4	2.0	1	1.4	2	4.7	1	1.2
	196	100.0	70	100.0	43	100.0	83	100.0

[a] Data available by county only in North Carolina.

TABLE 3

STUDY SAMPLE
NUMBER OF ESTABLISHMENTS BY SIZE OF WORK FORCE AND AREA[a]

Number of Employees	Total		Hartford		Forsyth		Mecklenburg	
	Number	%	Number	%	Number	%	Number	%
Under 50	25	12.7	11	15.7	6	14.0	8	9.7
50— 99	24	12.2	5	7.1	7	16.3	12	14.5
100— 249	53	27.0	16	22.9	11	25.6	26	31.3
250— 499	36	18.4	14	20.0	7	16.3	15	18.1
500— 749	17	8.7	5	7.2	2	4.6	10	12.0
750— 999	6	3.1	1	1.4	1	2.3	4	4.8
1,000—1,499	12	6.1	3	4.3	4	9.3	5	6.0
1,500—2,499	7	3.6	4	5.7	1	2.3	2	2.4
2,500 and over	16	8.2	11	15.7	4	9.3	1	1.2
	196	100.0	70	100.0	43	100.0	83	100.0

[a] Data available by county only in North Carolina.

sample. For the most part, however, the study is exploratory in nature, and the importance of the findings is not so much statistical as in the patterns that relate the variables to each other. For example, opportunities for young entry workers seem to be associated primarily with the occupational structure of the employing organization; but even where the relationship is strong, there is often more variation within a given group than between groups. In other words, employers seem to have more options in hiring and upgrading policies than each one generally acknowledges. Since the study is chiefly concerned with such policy and attitude variables, definitive statistical statements are minimized in the report of the findings in favor of an analysis of patterns.

The findings of the study are based primarily on 196 semistructured interviews with a variety of employer representatives, including top echelon executives, personnel or training staff, factory managers, or other middle management personnel. In some cases, more than one company official was interviewed.

The interview guide is reproduced in Appendix I. Interviews lasted from one-half to two hours. Topics covered included the specifics of company organization; job descriptions; breakdown into skill levels; hiring, training, and promotion policies; and a range of broad questions designed to probe attitudes toward the role of the schools, community agencies, and industry itself in the development of the labor force. In general, employers were genuinely responsive to the focus of the study and expressed a high degree of interest in the topics covered.

Chapter 2

HIRING POLICIES AND PRACTICES

The difficulties that young workers have in finding employment show up clearly in the national statistics of unemployment. On a local basis, finding a job is related to employer specifications of age, education, and experience; to the economic condition of the area, the industry, and the particular company; and to knowledge of where to apply.

One of these variables, the general economic health of the area, is relatively favorable for all three communities in this study. This was a prerequisite, since in depressed areas the scarcity of jobs obviates variation in other factors. In Hartford, Winston-Salem, and Charlotte, workers are being employed; the first question therefore becomes the extent to which youth are among the new hires.

AGE AND EDUCATION

In answer to the question, "In practice, do you hire people under 22?" 36 employers (18.3 percent) either replied, "No," or indicated that they hired very few. Six (3.1 percent) establish a 21-year minimum age. Of the remainder, 67 (34.2 percent) require that entry workers either be 18 or high school graduates, and 87 (44.4 percent) make no restriction as to age.[1] The breakdown by community among these four groups appears in Table 4.

Companies in Groups I and II, which offer very little opportunity for youth, are mainly engaged in manufacturing, but include a small insurance company, a construction firm, two hotels, and several trucking companies. Those who do not hire youth, generally give one of three reasons. First are those who consider youth unstable "drifters." Said one employer, "A man changes jobs three times in his lifetime; I don't want to get him on the first one." It is significant, however, that many employers who *do* hire youth make much the same negative comments about the age group generally. A second type of response indicates that youth do not apply because they do not like heavy work, dirty work, or odd hours. One in this category, a small specialty manufacturer, actually

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[1] This category is probably overstated in size since it includes all unqualified positive responses to the question on hiring of youth. All qualifications used in creating the categories were volunteered by the respondents.

TABLE 4

DISTRIBUTION OF ESTABLISHMENTS BY HIRING PRACTICES AND AREA

	Total		Hartford		Winston-Salem		Charlotte	
	Number	%	Number	%	Number	%	Number	%
Group I (Hire None or Very Few)	36	18.3	23	32.9	4	9.3	9	10.9
Group II (Hire at 21)	6	3.1	1	1.4	2	4.7	3	3.6
Group III (Hire at 18 or High School Graduates)	67	34.2	13	18.6	15	34.9	39	47.0
Group IV (No Hiring Restrictions)	87	44.4	33	47.1	22	51.1	32	38.5
Total	196	100.0	70	100.0	43	100.0	83	100.0

wants "more young blood in the organization." The third type of response indicates that youth are not hired because experience is required. In all three groups, there are, of course, a few jobs for which young people cannot be hired because of licensing requirements or alcoholic beverage laws.

Group III and IV companies may be viewed as having employment opportunities for youth, but in addition to the 18 year old requirement made by companies in Group III, a little more than half of them also require a high school diploma for all jobs. When educational requirements are examined by size of company (Table 5)[2] the predeliction of large organizations for high school graduates is clear. Because the criteria for inclusion in the group requiring all applicants to be graduates were strictly drawn, educational requirements cover more jobs than these figures indicate. For the sample as a whole, 119 companies (60.7 percent) have some openings for which there are no formal education requirements, but the range includes those who hire only janitors without high school diplomas to those who will take on machine helpers with the possibility of upgrading in the future.

EXPERIENCE

Of these 119 companies, only 40 do not require experience for any job. The distribution of companies by experience requirements and size appears in Table 6.

Half the employers in the study require experience for some jobs. As with education, this group ranges from those who hire only a few inexperienced people for laborers or messengers to those who require experience only for a specific, highly skilled seg-

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[2] The data in Tables 4 and 5 do not match because the categories in Table 4 are based primarily on age, whereas Table 5 includes only education.

TABLE 5

EDUCATION REQUIREMENTS BY SIZE OF COMPANY[a]

	Size (Number of Employees)			
	Under 500		500 and Over	
	Number	%	Number	%
Require High School Diploma for All Jobs	27	19.8	17	29.3
Require High School Diploma for Some Jobs	30	22.1	24	41.4
No Educational Requirements	79	58.1	17	29.3
Total	136	100.0	58	100.0

Chi-square = 16.35 $P > .01$

[a] N = 194; data not available for two companies.

TABLE 6

EXPERIENCE REQUIREMENTS BY SIZE OF COMPANY[a]

	Size (Number of Employees)			
	Under 500		500 and Over	
	Number	%	Number	%
Require Experience for All Jobs	17	12.5	5	8.6
Require Experience for Some Jobs	68	50.0	29	50.0
Require No Experience for Any Job	51	37.5	24	41.4
Total	136	100.0	58	100.0

Chi-square = .71 $P > .01$

[a] N = 194; data not available for two companies.

ment of their work force. The latter are found where a large group of semiskilled women workers stand between the unskilled and highly skilled males; or where only a few skilled blue-collar workers are needed for maintenance, in such establishments as hospitals, bakeries, and other food processors. Employers of metal machine workers, construction workers, and printers frequently hire experienced men at the journeymen level, especially if the establishment is small.

While half the sample require experience only for certain jobs, the other half have more definite policies, requiring experience of all prospective employees or of none. Although these two groups are smaller, it is of interest to note the factors that seem to be associated with the two extremes. Factors tending to operate against requiring experience are the nature of the labor market; uniqueness of the business; predominance of a female work force; and predominance of a low-skilled male work force.

Local Labor Supply

Important among the factors governing the role of experience in getting a job is the caliber of the local labor supply. The supposition that the more mature the industrial development, and the more stable in employment, the greater the demand for experienced labor and the fewer the opportunities for inexperienced workers, is dramatically supported by the data comparing the three communities studied. In Hartford, 21 percent required experience for all jobs, compared with 5 percent in Winston-Salem and 7 percent in Charlotte. No experience was required for any job in 13 percent of Hartford companies, 21 percent in Winston-Salem and 41 percent in Charlotte.

One Charlotte employer, who never advertises for experienced workers, summed up by saying, "If you come South to get cheap labor, then you must expect to train them yourself." He added that he personally prefers this to hiring experienced people because he "doesn't want other employers' mistakes."

Uniqueness

Among employers who do not require experience for any job, a frequent explanation is that the company performs a new or unique operation in the area. Newness in the area alone is not a governing factor, but combined with a unique operation (or rapid expansion), it results in the willingness to accept, or even a preference for, the inexperienced. In this context, "unique businesses" are those with specialized machine processes and unique products, such as saddle and organ makers; those which, although common in national industry (such as steel fabrication), are unique in the area; and utility companies. Employers of this type frequently comment that no one with relevant experience is available, and because they are committed to the notion of having to train all their own workers, they prefer to get inexperienced men with promise and perhaps (although unstated) avoid the higher wage rate that experience commands.

Only three of the 22 employers in this category require experience. Two demand it for their skilled men—a dental equipment manufacturer for toolmakers, a transferable skill; and a chemical company, where experience is required for a small number of men in shipping and naval operation. Only one requires experience of all new hires. This, a small wireworking concern with no relevant experience available in the area, insists on some general work experience, preferably of a mechanical nature, to screen out the "problems" before "investing time and money in training in a specialized skill."

For the same reason, a few companies in this group avoid hiring youth because of the feeling that youth are not ready to settle down to be trained in a specialty. However, only 4 out of 22 avoid hiring youth, and there are those who prefer youth because they are more trainable.

Large Female Work Force

Employers with a preponderantly female work force account for another group of those with no experience required. Where women white-collar workers are predominant in financial and retail trade, experience is not a factor in hiring. Throughout white-collar industry, experience is required only for the small number of blue-collar men in maintenance work. For the rest, hospital and department stores express a preference for experienced personnel but no absolute requirements; but most banks and insurance companies look for recent high school graduates. One major insurance company said they look for raw and trainable workers and would shun those with prior experience in a similar company. A part of this preference for the recent graduate in the financial field may be that the companies in the sample are fairly large and important employers, a group which on the whole appears to be more interested in getting people young enough to develop company loyalty rather than to replace at a level of like experience. Additionally, few nonmanagerial jobs involve any long sequence of training or offer much opportunity for upgrading, with the result that experience would not eliminate significant training requirements and might even make more difficult the problem of the lack of promotion possibilities.

Employers in industry with large groups of female semiskilled workers are also among those without experience requirements. This is true in textile, tobacco, and electrical manufacture where women do the repetitious jobs. A major hosiery mill expresses a preference for inexperienced workers except in maintenance—and because few experienced maintenance men are available, does not require experience even for them. For women in manufacturing, few employers require a high school diploma except in clerical jobs. The exceptions are among the large companies with sufficient prestige as employers to demand a diploma for semiskilled factory work; but most employers, particularly those in nondurable manufacturing, say that dropouts can qualify for any job in their company. The only female occupation where experience is frequently a criterion is waitress, but in other service jobs (such as laundries and food service) there are no special requirements. As evidence that no clear rules obtain, one major textile mill says that experience is the prime criterion in hiring; and one hotel hires only experienced workers on the ground that a hotel "can't train anyone because it is in operation 24 hours a day, seven days a week."

Low-Skill Male Work Force

Companies with a male work force characterized by low skill requirements are also among those with open hiring. Supermarkets, food processing, fertilizer and dye manufacture, and others where physical labor is an important factor, are among this group.

Experience Required

For companies requiring experience for all jobs, it is more difficult to delineate related variables. The 22 in this group include the majority of transportation companies; some of the smallest companies in the sample that are looking for people with general work experience as a way to cut turnover; and an assortment of moderate-sized machine and metalworking shops that claim it is cheaper to hire experienced men than to train them. In general, this last group of companies is characterized by the predominance of one skill level and an uneven production rate. Significantly, however, there are even more companies of this kind without rigid experience requirements. In companies with 100-500 employees, the option seems to be either to hire experienced people or to substitute a high school diploma for experience.

EXPERIENCE AND EDUCATION

The relationship between experience and education requirements cannot be stated absolutely, mainly because the majority of companies have mixed policies. A number of inferences can be drawn, however, to support the conclusion that experience and education are opposite sides of the same coin.[3] It has already been pointed out that experience is more likely to be required in Hartford than in Winston-Salem or Charlotte. Precisely the opposite is true of education requirements. In Charlotte, 30.6 percent of the employers require a high school diploma for all jobs; in Winston-Salem, 21.4 percent; and in Hartford, 18.8 percent.

One may infer that Charlotte employers, not having an experienced work force from which to draw, are more likely to impose educational requirements. The intervening variable here may well be the presence or absence of formal training in the company, which in turn is related to size.[4] Table 7 shows the relationship of educational requirements for blue-collar jobs to presence or absence of formal training programs.

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[3] A Washington, D.C. study found that in hiring unskilled men, employers prefer mature workers with experience, presumably on the grounds of their greater stability. Young workers, for the most part, had to be high school graduates. Bureau of Social Science Research, *Employment Opportunities for High School Dropouts.* Washington, D.C.: The Bureau, 1958.

The data are by no means unequivocal; and the clearest difference is a negative one—companies without formal training programs are more likely *not* to demand high school graduation than companies with formal training. Closer examination of the group requiring a diploma for all jobs shows that the 30 companies without training are almost all small (under 500 employees); the few large companies in this group had formal training programs in the past but discontinued them because of layoffs.

The problem in discussing the relationships among experience and educational requirements, training, and size is the number of permutations and combinations from which employers are free to choose. Sometimes these options are exercised by foremen or department heads, who, operating within a budget and charged with making a rate, will find it expedient to look only for experienced workers, while others consider it more efficient to hire potential talent and do their own training.

In an exploratory study, one can only suggest how these variables form patterns. From the current study the following major combinations seem to emerge:

1. Require high school graduation, but not experience, and offer formal training. This is characteristic of large companies and seems to be a favorite method of recruitment not only for the rank and file but for management personnel as well. For the upper echelons, large organizations are prone to recruit from prestige colleges and spend considerable sums in personnel devel-

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[4] For discussion of size in relation to training, see Chapter 3.

TABLE 7

DISTRIBUTION OF COMPANIES BY EDUCATION REQUIREMENTS AND FORMAL TRAINING[a]

	Companies Offering Formal Training		Companies Not Offering Formal Training	
	Number	%	Number	%
Require High School Diploma for All Jobs	15	21.7	30	24.0
Require High School Diploma for Some Jobs	32	46.4	22	17.6
No Educational Requirements	22	31.9	73	58.4
	69	100.0	125	100.0

Chi-square = 19.67 $P < .01$

[a] N = 194; data not available for two companies.

opment. This policy is consistent for the lower levels and is adhered to except in special cases. As four companies in the sample put it, dropouts are hired "only in the spirit of community cooperation."[5]

2. Require high school graduation for the inexperienced, but offer no formal training. In small manufacturing concerns, hiring often occurs at several levels. If a skilled man can be found, his experience obviates the question of formal education. But an entry worker is required to have a high school diploma as minimal evidence of trainability in an informal setting. These options are typical of the small metalworking establishments in Hartford, but also occur in such diverse establishments as a government agency and in small companies engaged in the manufacture of food products.

3. Require neither education nor experience. This is an older pattern that was prevalent when the majority of the work force was low-skilled males, and it persists in those industries that still need physical labor or hire men for heavy assembly line operations. The change in the occupational structure that has resulted from advanced technology and the shift to white-collar occupations makes this a diminishing type.

4. A lesser number of companies require both high school graduation and experience. This pattern shows up in small printing establishments where the nature of the work calls for a fair degree of literacy, and in a company not itself engaged in training, which must hire experienced men.

For the worker without a high school diploma, it seems only logical to require experience. Unfortunately, it is hard to see how this experience can be gained. Those employers requiring it for all jobs speak vaguely of "elsewhere." Even more important is the disinterest in general work experience. The question put in the interview was, "For what jobs do you require experience?" and the interviewer was asked to note whether the answer pertained to general or specific experience. Only 13 respondents ascribed any value to general work experience, mainly as a screening device to insure greater stability and to obviate "problems." Otherwise, all references to experience were highly specific, often to the point of naming particular brands of machines. Later on in the interview, when the discussion turned from the actualities of hiring policies in force in the company to broader consideration of the preparation of youth for work in the community at large, employer spokesmen were more apt to ascribe value to general work experience. Many felt that familiarity with the "ways of the world of business" and the discipline of a job would be invaluable for youth, but at the same time did not see how their company could structure jobs for those still in school or under 18 or without training.

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[5] For evidence that every attitude can be justified somehow, compare this policy statement by one employer: "We feel that by accepting only high school graduates, we discourage kids from dropping out."

DIFFERENCES IN OPPORTUNITY BY SEX

Up to this point, the report of the findings has not differentiated employment opportunity by sex, but there are obvious differences in the possibilities for young men and women. National statistics show that girl high school graduates suffer far less unemployment than male graduates and dropouts or female dropouts,[6] a fact that reflects chiefly the match between high school clerical training and employment demand.

Employment of young women in clerical work is accompanied by high turnover, so that succeeding waves of graduates have found opportunity in the expanding market for clerical skills. The trend toward electronic data processing is likely to eliminate the simpler occupations in this field, and create an even greater demand for more complex skills; presumably more intensive and longer training will be able to cope with this problem as it arises, although the relative number of jobs may decrease.

When one turns to consideration of opportunities for girl dropouts, the picture is quite different. While they may be employed in service occupations—as waitresses, chambermaids, and nurse's aides, for example—there is here the same preference for mature women as in manufacturing. Women without such formal education can find employment not only in services, but also in repetitive assembly operations in a variety of manufacturing plants. Of the 129 manufacturing companies surveyed, one out of five has at least 40 percent females in its work force. These are mainly engaged in production of nondurables, food, textiles, apparel, and printing.[7] Four, however, are in growth industries, instruments and electrical equipment, that now employ women as assemblers almost exclusively.

There is evidence to suggest that turnover among women in production jobs is not as high as among young female clericals. Only 9 of the 28 manufacturing companies employing 40 percent females or more report high turnover rates, and a number employing women for selected operations commented on their stability.

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[6] Perrella, *op. cit.*

[7] Although women are not generally associated in most minds with the printing industry, many are employed in binding, proofreading, and in operating folding, cutting, and collating machines. In small establishments, they often outnumber male employees.

The study attempted to explore reasons for preferring women workers in certain functions. Of the total sample, about 20 percent employ so few women as to make the question meaningless. Of the rest, about half (82 out of 156) simply stated that women customarily perform such functions. This response came primarily from white-collar dominated industries in banking, insurance, and trade, as well as in services traditionally performed by women. In banking, where male tellers have been the norm, most new hires are now women.

A few employers (about 6 percent), who have women in skilled blue-collar jobs, maintain that they perform as well as men; but the rest prefer them because they are "more dextrous," "good at monotonous jobs," "offer no problems of promotion or layoff," or are "cheaper."

To the extent that unskilled and semiskilled opportunities remain for mature women, and highly skilled, technical, and professional opportunities are increasing for both sexes, society at large is faced with the problem of how unskilled males are going to find employment commensurate with their numbers, or how they can alternatively support themselves and their families. The problem involved here is illustrated by the spokesman for a laundry: "Most boys who apply for laundry work are dropouts, and we can't use them because the male jobs are primarily in route sales, and for that you must be a high school graduate."

The pattern of restricted opportunity for male employment, resulting from years of severe discrimination, is the chief factor associated with the instability of many Negro families. That this pattern can take its toll among other populations is clear from the breakdown of family life now being observed in depressed Appalachia. Clearly, none of the communities under study here has suffered such massive deterioration, but the processes by which young men become attached to the labor force can no longer be taken for granted in the light of current trends. Even with the overrepresentation of manufacturing in the sample, the hazards are evident in the present study. If organizations with a majority of female employees are subtracted, Groups III and IV (employers who hire youth) shrink to 43 and 66 companies, respectively. Together they constitute about 56 percent of the sample. This finding bears out a Hartford Chamber of Commerce survey on the hiring of 1960 high school graduates. The 37 companies responding hired a total of 2,100 1960 graduates, of whom 73 percent were girls.[8]

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[8] Greater Hartford Chamber of Commerce, *Survey to Determine Trends in Business and Industry's Needs for High School Training as a Preparation for Career Jobs*, April 1961.

DRAFT STATUS

Still another hazard to the employment of young men is the matter of draft status. Twenty-nine companies (14.8 percent) stated that they consider draft vulnerability a negative factor in hiring for all jobs. Since final determination of draft status may take several years for single men, this is a sizable deterrent. Subtracting these 29 companies reduces Groups III and IV still further, to 31 and 49, respectively. In other words, draft-eligible males under 22 are welcome at about 80 establishments, or about 40 percent of the total—providing, of course, that they can meet whatever education or experience requirements are set down.

GROWTH AND DECLINE IN EMPLOYMENT

Not the least of the factors impinging on opportunity is whether or not industries and individual companies are expanding. In an era of rapid technological progress, production can, of course, go up without corresponding demand for workers. The effects of automation on employment among companies surveyed has not been dramatic. Only seven considered it a big factor in their operation now or in the near future. One-third felt it has no application, and one-third have already installed new equipment (such as electronic data processing devices) for specific operations. The overwhelming majority felt that their need for workers would continue at about the same rate as in the recent past. In 1963, 11 companies (5.6 percent) contracted in employment; 58 (29.6 percent) expanded; and 127 (64.8 percent) remained about the same. On a regional basis, 39 percent of Charlotte companies are expanding, compared to 23 percent in Hartford and Winston-Salem. In Hartford, 12 percent of companies were declining in employment, compared to 2 percent in both Winston-Salem and Charlotte. Of the companies established since 1959, 12 were in Charlotte, 2 in Hartford, and 1 in Winston-Salem.

All of the companies declining in employment were in manufacturing. The expanding companies were in all fields, but in line with national trends, were relatively more numerous (34 percent) in nonmanufacturing than in manufacturing companies (27 percent).

Of the 58 expanding companies, 43 are among those that hire youth (Groups III and IV), and 20 are among the companies in which workers under 22 account for 25 percent or more of all new hires. This is a mixed group, including large nonmanufacturing and small manufacturing companies, with the latter evenly divided between durables and nondurables.

In the remaining companies that hire youth, opportunity would seem to be limited to turnover. Among those with stable employment, 42 were in the group hiring 25 percent or more youth, mainly as replacements. Large companies (over 500 employees) are somewhat overrepresented in this group, but all sizes and types of industry are included.

For the study as a whole, the impression gained is that while there has already been a relative decrease in employment, compared to a rise in production, the situation is now in balance for the majority of organizations. Of course, the population is increasing, and the number of people seeking work is increasing concomitantly. That these factors may cause the unemployment rate to rise is an eventuality that does not seem to impress many employers at the moment.

ROUTES OF ENTRY

In an era of selective hiring and complex personnel practices, an important element in placement is access to a specific opening. Traditionally, American workers have obtained employment mainly through personal contact. This method is almost the only one for small marginal establishments; typically, the "Momma and Poppa" store may take on still another relative, but is unlikely to look elsewhere for help. Many larger establishments merely extend this kinship arrangement by hiring relatives and friends of their own employees.

Curiously, personal contact as a means of securing employment creates certain problems for employers as well. In Hartford, where highly skilled machinists and tool and die makers are in short supply, the upwardly mobile children of these specialists are, by and large, bound for college; yet few attempts are being made to widen the circle of choice.

Table 8 shows the rank order of first choices and all choices for obtaining nonprofessional, nonmanagerial entry workers among the companies surveyed.

The term "gate hires" is used to designate those companies who keep on hand a list of applicants who have applied to them directly and whom they can call as needed. The category "other" includes such miscellaneous methods as drawing from a civil service list.

Personal contact remains in first place as a means of hiring, followed closely by the public employment service. These, together with gate hires and advertisements in the mass media, are the major categories and have the same rank whether mentioned as the first choice or included for any choice. Schools account for

TABLE 8

SOURCES OF ENTRY WORKERS BY NUMBER AND RANK OF FIRST CHOICES AND ALL CHOICES

Source	First Choice		All Choices	
	Number	Rank	Number	Rank
Personal Contact	58	1	125	1
Public Employment Service	41	2	122	2
Gate Hires	39	3	104	3
Mass Media	35	4	90	4
Rehires	9	5	33	6
Private Employment Agency	5	6	33	6
Other	4	7	10	8
Schools	3	8	63	5
Unions	2	9	5	9

only three first choices, but evidence of some contact with them is shown by 63 companies.[9]

The recent reorganization of the public employment service and its attempts to increase its share of placements is evidenced by the fact that 122 companies (62 percent) make some use of its service. The attitude toward it, however, varies a good deal. Of the total, about 16 percent of the companies have had no experience with it at all; 43 percent are positive about its service, at least for one group of workers; and 40.8 percent expressed negative feelings either about the service itself, or about the quality of applicants referred. In this last group one comment was, "They try, but, oh, the crumbs they send out!" While not many comments were so colorful, the feeling expressed was fairly typical. The tendency among employers and workers to talk about the "unemployment office" is evidence of a widespread feeling that only those workers collecting unemployment insurance are referred, and that the agency has a punitive function rather than a placement function.

In the current study, local differences in attitude toward the employment service were small. Somewhat more employers in Charlotte have had no experience with the employment service, and somewhat more in Winston-Salem expressed positive attitudes toward it. There are, however, variations not only from city to city, but from company to company in the same industry.

PROBLEMS OF DISCRIMINATION

One of the effects of personal contact as the chief way of finding a job is that young people growing up in deprived neighborhoods, and particularly when they are also members of minority groups, have less chance of finding employment. If unemployment is high in their own reference groups, or if most of their relatives and neighbors have only marginal work, they lack precisely that contact that is often needed to hear about and then to secure permanent jobs. Where the public employment services operate on a nondiscriminatory basis, the balance is of course somewhat redressed.

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[9] For evidence that this is the most typical source of employees, even in new fields, see Kwass, Carole, and Lafayette, David P., "Opportunities for Employment as Routemen and Mechanics in the Automatic Merchandising Industry," *Occupational Outlook Quarterly*, 8 (September 1964), pp. 12-16.

In the present study, no attempt was made to probe attitudes about integration or discrimination. However, a question on establishment of training programs to further integration, while completely unproductive on that score, did elicit responses on integration generally from a little more than a third of those interviewed. These comments, all volunteered, are clearly not representative, but it is interesting to note how evenly they split. Twenty-seven companies hire no Negroes at all, while 26 are fully integrated. Similarly, 38 expressed positive attitudes toward integration and indicated that their companies either already had an integrated work force or were attempting to further integration; while 35 expressed negative attitudes toward integration, including one who despaired of finding qualified Negroes to work in a bank, "You almost have to look for Negroes with Ph.D.'s to find one who can be trained as a teller." Or conversely, the employer who prefers whites to have high school diplomas, but not Negroes, because, "A Negro graduate would rather run things than work."

PREEMPLOYMENT OCCUPATIONAL TRAINING

Thus far in the discussion of the factors involved in finding an entry job, educational requirements have been considered only in general terms. The significance of a high school diploma has been the focus of the analysis, without regard for the specific occupational content of preemployment schooling. Proponents of vocational education see it as one answer to the problems of youth employment.

> The fact is that although business and industry would like to have employees with a higher level of general education and a concomitant higher potential for subsequent promotion, for *entry jobs* in the American economy today, competence and skill of a rather high order, in some facet of the world of work, are absolutely essential.[10]

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[10] Harris, Norman C., *Meeting the Post High School Educational Needs of the Vast "Middle Group" of High School Graduates*, Presentation to the North Central Association of Colleges and Secondary Schools, March 19, 1963, p. 3. (Italics in the original.)

The two geographical areas for the study were chosen (as stated in Chapter 1) partly because of unique features of the vocational education offerings. It is pertinent, therefore, to describe the current status of occupational education in the three communities and to attempt to estimate the use made by employers of these programs.

Although the schools scored near the bottom of the list of employers' sources of new workers, the significance of local vocational education cannot be measured entirely by its placement function. Occupational training can play a role in the development of the labor force even when schools are not the principal point of contact between students and future employers. The courses offered in schools, or conversely, those skills for which there is no school-based training, may influence the employer in his determination of what kind of training to offer as a part of normal functioning. In this context, both secondary and post secondary school vocational education were surveyed.

Secondary School Vocational Training

For historical reasons, and possibly out of recognition of current trends, none of the three communities surveyed puts heavy emphasis on vocational education at the secondary school level. The Hartford public school program is limited to standard industrial arts, with a few courses in woodworking and mechanical drawing for junior high students, and a somewhat more elaborate program in the senior high schools. In the 10th and 11th grades, boys spend one semester in each of four shops chosen from woodworking, metal, printing, drafting, and electrical. In their senior year they may elect to concentrate in one shop.

The major secondary vocational education program is operated solely by the State of Connecticut through the Albert I. Prince Vocational-Technical School. The 600 students enrolled in regular day high school programs come not only from the city of Hartford but also from 20 surrounding local communities. There is no tuition charge; transportation to the school is provided by the town in which the student lives. School time is divided in the traditional manner between trade training and general education, that is, between shop and classroom. Courses are offered in automobile mechanics, barbering, beauty culture, carpentry, machine drafting, electricity, electronics, machine shop, plumbing and heating, printing (letter press and offset), radio and TV repair, tool and die making, welding, and fashion design. A few trades are overcrowded; in beauty culture, for example, there is difficulty in placing graduates, but, by and large, according to school officials, companies actively recruit at the school, especially for the building and metalworking trades. There are active consulting committees from industry at all levels, from a statewide industrial committee to craft committees for each shop.

In Winston-Salem, industrial arts is a junior high school program, with the usual shops in mechanical drawing, woodworking, metals, plastics, and graphic arts. The schools are trying to expand these offerings for the slow learner and the potential dropout and to tie them more closely to the high school training program. Trade courses in tailoring, auto mechanics, brick masonry, and painting and decorating are offered in one Negro high school, and a machine shop course is located at another high school to which all schools in the community may send students on a quota basis. Some high school students are enrolled in the Forsyth Technical Institute (formerly the Industrial Education Center) but they are being phased out as part of the reorganization of these institutions on a statewide basis. The community is considering the establishment of one trade center available to all high school students.

Charlotte again has an industrial arts program in junior high school, which also extends to the senior high years. It has, in addition, a somewhat larger number of students enrolled in trade courses than does Winston-Salem—272 in commercial cooking, shoe repair, cosmetology, brick masonry, tailoring, and auto mechanics; and 500 in vocational agriculture. A few selected high school students are eligible to enroll in technical courses at the Piedmont Community College on a half-day basis.

Work-Study Courses

In addition to students who are enrolled in regular vocational courses, each city has some training for high school students who go to school half-time and work half-time. Some of these are in the conventional trades, but more are in so-called "distributive education" (DE), a phrase mainly descriptive of retail trades. Of the three communities, Hartford has the smallest number. DE there is only three years old and enrolls 37 students. A special program of work study is in operation for 15 retarded youth. In the 1963-64 school year, the greater Hartford Chamber of Commerce took the initiative in establishing a work-study committee composed of representatives from labor, industry, schools, government, and social agencies. The program was designed to have an in-school phase from September to January and a work phase from January to June, and to operate in one local high school. The school increased the guidance time available to students in the program, and attempted to match academic subjects to work assignments. The program was aimed at the potential dropout, and after an elaborate screening program 124 students were selected. By the time the work phase started, 45 were actually placed on jobs. Apparently it was more difficult to find suitable placements than the community had anticipated. Most seem to have been in clerical jobs, particularly in the large financial institutions of the city.

It is interesting to note that one utility formerly had a part-time program for high school girls, which was used as a recruiting device but was discontinued because of shifts in the internal operation of the company. Their participation in the current work-study program results from what they call "civic duty." Similarly, a large bank had until this year conducted Saturday morning classes for 12 weeks in the spring for high school senior girls, who were paid $1.25 an hour to be trained in IBM key punch and bookkeeping. This program was discontinued as demand for workers lessened due to automation and consolidation.

Distributive education in Winston-Salem includes both clerical work and retailing. Juniors and seniors, 16 and older, are eligible, and although there is increasing difficulty in obtaining placements, there are programs in six schools (including one Negro school) involving about 180 students. In addition, Winston-Salem has four industrial cooperative training programs with 88 students enrolled. These are regular vocational education students who are employed in part-time jobs related to their trade course, in this case such occupations as meatcutting, shoe repair, and auto mechanics.

Charlotte also has industrial cooperative training for about 165 juniors and seniors. As might be expected in a distribution center, it has the largest DE program, involving about 400 students (including some 75 Negroes). Here, the program is devoted exclusively to retail trades, but a similar arrangement for clerical workers is in the planning stage. There are also plans to change the nature of the DE program. Instead of alternating half-days on the job and in school, students will take special courses in sales and marketing, and then get a few weeks of work on a job in their senior year. Presumably this would enable the schools to spread the placements available to a greater number of students. Eight companies in the sample have these students at work, and a few have as many as 25 at a time. One large food chain, with only a few DE students, employs many more part-time, after school. As an interesting sidelight on the relative prosperity of the community as well as on racial hiring patterns, one company that takes on only white girls says that DE employment in their firm is not considered a vocational opportunity in Charlotte, as it is in some of their units in more depressed areas of Kentucky and Virginia. The girls going through the program presumably have better opportunities for permanent jobs than this particular firm can offer.

All of these work-study arrangements require the close cooperation of industry advisory committees. In addition, however, there is an example of industry-school cooperation in Charlotte. A company with a large data processing unit has developed a plan to orient about 12 students to the most advanced EDP equipment during a 150-hour summer program. This is considered by both the company and the schools as an exploratory opportunity, but it has already involved a few high school teachers charged with the establishment of a regular course in data processing in the business education department.

Vocational Orientation

In another attempt at innovation, Winston-Salem is considering the establishment of a course entitled "Introduction to Vocations." The North Carolina legislature has allocated $1.5 million for such programs in about 45 schools throughout the State. The one currently in operation at a junior high school in Durham, North Carolina, is typical of the pattern. From ninth grade students, who were not sure of going on to college, 126 were selected and placed in four classes, each meeting one period a day, five days a week, with a special teacher. In addition to the special class, the rest of the curriculum is supposed to be as closely related as possible to the occupations under discussion.

Four units are covered: (1) the American economic system and its relation to occupations and individuals; (2) professional, technical, and managerial occupations; (3) office, clerical, and service occupations; and (4) manual and mechanical occupations. The grouping into broad categories is designed to give the student an idea of more than one specific job. Students are encouraged to evaluate their own wishes, desires, and aptitudes. The teacher uses visual aids and recruits outside speakers, but no money is available for trips unless it is raised locally. The instructor himself has an industrial arts and trade training background. Some exploratory shop work is included, but the classes are too large to accomplish very much, and the fact that they are coeducational makes this part of the program of less use than it might otherwise be.

The course is designed as the initial stage of a technical curriculum, which is being used experimentally in five high schools in different parts of the State. In some cities an attempt has been made to support this new program with work-study assignments. In general, however, the goal is more planfulness on the part of the students and some appreciation of what is necessary for success in the world of work.

Post Secondary School Vocational Training

The national trend toward deferring specific trade and technical training to the post high school years is evident in all three communities, but it is not taking place without controversy. There are even some who claim to see a reversal of this trend, particularly in trades training. School personnel and employers alike commented that public high schools sometimes focus primarily on the college-bound student, thereby short-changing those who will either drop out or go no further than high school graduation. Some feel that postponement of trade training results in special disadvantages for youth of the lowest socioeconomic group who cannot afford to defer working for a 13th or 14th year, while others feel that many youth are eager for an immediate job and do not wish to remain in school, even if financially able. Negro youth, in particular, may not be interested in post high school training because they see little help from such additional training in bettering their chances of employment. Negative views are countered by those who feel that occupational training must take place after high school graduation if it is to be advanced enough to meet rising skill requirements.

Notwithstanding the controversy, much of the occupationally oriented education in the three communities takes place after the high school years. In Hartford, the Regional Technical Institute offers a two-year post high school program for high school graduates, leading to an associate degree in engineering-related subjects. In addition, the Albert I. Prince Vocational-Technical School offers post high school programs, usually of two years' duration, in a variety of trades including automobile body repair, barbering, carpentry, tool and die, printing, plumbing, and machine trades. High school graduation or the equivalent is required for most courses. Adult courses are offered free in a similar variety of trades in the evening.

In North Carolina, the Industrial Education Centers,[11] through joint State and local support, offer both trade and technical programs, both full-time and in short-term extension classes. Students in the technical programs must be high school graduates or the equivalent. For trade programs, the minimum age is 18 and applicants must have completed at least eight units of high school work including one unit of high school algebra. In addition, applicants to both trade and technical programs are screened by a series of tests. In contrast to the careful selection procedures for occupational training, the IEC's also offer remedial programs in basic education such as literacy and mathematics, for which there is no screening. Fees for both technical and trade courses are set by the State at $30 per quarter for full-time students and $2 per quarter hour credit for part-time students.

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[11] In Winston-Salem this center is now a technical institute; in Charlotte, with the addition of a two-year junior college program, the center has become a community college. Both are referred to here by their older title (IEC) because of the emphasis on their trade preparation courses.

In both Winston-Salem and Charlotte, training at the technical level is offered in management and administration and in such fields as air conditioning and heating, chemicals, electronics, mechanical drafting and design, and agriculture. Programs at the trade level are offered in many of the same fields as well as in automobile mechanics, machining, practical nursing, radio and TV, and welding.

Available to those in the Charlotte area, in addition to the IEC, is a specialized public program at North Carolina Vocational Textile School in Belmont. Entry requirements are less stringent. Students need only an eighth grade education and are accepted at 16 years of age. Courses are mainly in skilled trades subjects related to the industry and are offered on a three-shift basis to accommodate students who, for the most part, are already employed in the industry.

Both IEC's operate extension courses in response to requests from industry, as a part of a program designed to attract new business to the area, or to promote the expansion of existing companies. The recent revision of the State law governing these institutions attempted to define this role more exactly, but actual language is subject to a variety of local interpretations. It reads in part:

> . . . it shall be a matter of general policy of the State Board of Education that the industrial education center is not assuming the continuing responsibility for providing for individual manufacturing firms or corporations the routine training required for regular operator training in the factories of the firm or corporation made necessary because of turnover of personnel.[12]

This provision seems to assume that certain types of training are *customarily* offered by employers. The *ad hoc* nature of most industry-based training makes this a difficult basis on which to define the role of the IEC's.

Officials of post high school vocational and technical schools in all three communities state that there is no difficulty in placing graduates. None of the three operates its own placement service. Placement is handled informally by guidance counselors or shop instructors, and by the local public employment service which comes directly to the schools for counseling and testing. All report that their graduates are in demand, although they cannot tell precisely where they have been placed. Follow-up studies are generally confined to establishing the number of graduates in related jobs. For example, Winston-Salem reports that about two-thirds of the graduates of the IEC are employed in related work with the highest rate of relevance in printing and the lowest in auto mechanics.[13]

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[12] North Carolina, "Community College, Technical Institutes and Industrial Education Centers," *General Statutes*, Chapter 115A, Art. I, Sec. 115-A, Par. 3. 1963.

In all three communities, little is known about the students in the extension or adult education courses. There are no data on their employment prior to or subsequent to their training or their purposes in taking such training. It is assumed to be self-initiated or at the encouragement of employers. Part of the problem in North Carolina according to IEC officials is that the staff of the center come primarily from industry and are not permanently employed as instructors. Therefore, there are no controls possible to assure accurate record keeping.[14]

In Hartford, a highly industrialized city, it can be assumed that the relatively small number of graduates of these programs is readily absorbed. The North Carolina training facilities are relatively new, and, therefore, their role in the community is not fully developed. In some fields where training exists, there have been no graduates as yet, although school personnel indicate that employers already have indicated their willingness to accept graduates. As community interest and participation in school-based training grows, it appears likely that the function of these centers will expand, although the future scope of such training cannot be precisely ascertained.

Employer Reactions on Vocational Training

Although many educators agree that the vocational content of public education should be increased, employer attitudes on this matter are not clearly established. Some feel that a higher level of basic education is essential as a foundation for on-the-job training. Others, as mentioned earlier, envision a shift of the sources of skill training from traditional work experience to a heavier emphasis on specific preemployment training. According to Dauwalder[15] and others conducting research on this topic, opinion among employers seems to vary by size, with the large employers preferring the well-trained generalist at both the production and managerial levels, and the small employers hoping to be able to buy specific skills at each level.[16] In the meantime youth are exhorted by both teachers and business leaders to learn a trade before seeking employment.

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[13] For further discussion of the relevance of vocational education to careers in auto mechanics, see *The Recruitment and Training of Automobile Mechanics*, U.S. Department of Health, Education, and Welfare. Washington, D.C.: U.S. Government Printing Office, 1965.

[14] For a discussion of the lack of records in industry of employee education, see the discussion of tuition refund programs in Chapter 3.

Several approaches were used in an attempt to gauge employer sentiment on this point. First, as already discussed, the use of schools by employers for recruiting workers was ascertained. Second, they were questioned on their general attitudes toward the best preparation of youth for work. Third, they were asked to specify the preemployment training required for entry jobs in their organizations. Finally, the jobs for which they hired youth were enumerated as a basis for inferences on necessary preemployment training.

With respect to their general reactions, although less than one-fifth of the employers in the sample actually hired directly from the schools or sent their workers to the schools for skill training, there were few negative responses. In Hartford, while most employers felt that the vocational education system was a good one, some of the small employers wistfully stated that while they would like to hire graduates, they always seem to go "elsewhere." One may conjecture that the low number reporting hiring from the schools is partially attributable to the fact that workers apply directly to the large companies on their own initiative. While there is no specific information as to the exact placement of vocational graduates, it can be assumed that school-based occupational training is a factor in the general development of the local labor force. A few employers indicated that school offerings were restricted to manufacturing skills and that such service occupations as appliance repair work and hotel and restaurant skills were neglected. Training for oil-burner technicians, bakers and certain other specialties is dependent on facilities in other communities. Despite these shortcomings, employers appeared to agree that for a community of its size, Hartford has an adequate vocational training system. Shortages of trained workers were often attributed to lack of interest on the part of youth in certain occupations.

In the North Carolina communities, the post high school system was the focus of employers' comments. Because the IEC's are relatively new to the communities, as would be expected, few employers reported direct experience with them. Even in the absence of actual contact with these schools, general approbation was expressed. Provision of training was considered a step in the direction of raising the skill level of the local labor force. In the words of one employer, "this State is full of trainable material, boys who never before had a chance to get away from the small farm."

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[15] Dauwalder, Donald D., *Education and Training for Technical Occupations*, Los Angeles City Junior College District, 1961, p. 43.

[16] From the data gathered in this study, small employers seem more likely to want specific skills developed through experience, rather than preemployment training.

Only one company in the sample reported substantial use of the IEC. This, a small concern relatively new to the area, recruited all its semiskilled workers from the IEC. Skilled workers, however, were brought in from outside the area. The employer stated that school training was adequate for the semiskilled, but that he would prefer to train his own skilled workers in the future. Other reservations concerning the merits of school-based training were expressed. A needle trades manufacturer felt that training of sewing machine operators beyond a few days is meaningless unless provisions are made by the school for working on a specific product. A hospital, which hired some practical nursing graduates reported that it prefers its own training program. The printing industry association's attitude was that school-based training cannot replace on-the-job training. In contradiction to such negative comments, a spokesman for the Employment Security Commission considers it easier to place graduates, especially nonwhites, for whom such training provides an "entering wedge."

In addition to the question of the extent to which schools train effectively, some employers were concerned about the duplication of training. An employer who expressed concern with problems of youth employment felt that public training facilities should direct attention away from manufacturing skills, which can be acquired on the job, and toward those service occupations in health and welfare where acute shortages of trained workers exist. In these areas, he stated, there are insufficient numbers of skilled personnel to train new recruits on the job.

Employer attitudes toward training programs under MDTA sponsorship were similarly varied. Less than 15 percent of those interviewed had any experience with these programs or any specific comment. A few of the larger employers had participated in on-the-job training and had favorable comments to make about the caliber of trainees. Some, while not involved directly, reported hiring workers who had received classroom training, especially clerical workers. Some reported that they had been asked to participate, but were unable to because of recent layoffs. A few were entirely negative to MDTA programs because they "did not want the Government looking over our shoulders." The majority of employers were either unaware of the nature of these programs or were of the opinion that such training could not have any utility for them.

The description of employer attitudes thus far has been confined to comments made on preemployment training available in the local area. When the question was broadened to consideration of the best preparation for youth irrespective of the local system, 31 percent mentioned vocational training as an attribute that would enhance employability. Employers of less than 500 workers were more frequently found within this group. Other studies have revealed a similar size distribution of employer opinion on preemployment preparation.[17]

In contrast to their opinions about what *youth* need, 50 percent of the respondents volunteered occupational training as an answer to improving the *school's* preparation of youth. The fact that many more mentioned training when asked specifically about the schools implies that, in their minds, the problems of youth are associated more with behavior and motivation than with preemployment preparation. In fact, responses on *youth* were far more frequently focused on attitude (51 percent) than on the desirability of training (31 percent).

The Jobs for Which Youth Are Hired

As a means of inferring actual preemployment training requirements, the jobs for which youth are actually hired by organizations in the sample were enumerated. Companies employing youth under 21 mentioned 190 specific jobs. The responses did not indicate the numbers hired in each classification, but they can be grouped under general headings by the frequency with which they were mentioned.

Almost every company hires young women for some category of office work. Girl dropouts are hired, although far less frequently, for factory work in assembly and the tending of relatively simple machines. For male high school graduates and dropouts, the picture is more complex; the following list of male jobs gives the frequency with which various skill levels were mentioned and some examples of specific job titles:

Unskilled: 118
  Blue-collar—General laborer, sweeper, porter, materials handler—58
  White-collar—Messenger, mail clerk, stock clerk, shipping clerk—48
  Service—Kitchen and laundry helper—12

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[17] See, for example, Benson, Charles S., and Lohnes, Paul R., "Public Education and the Development of Work Skills," *Harvard Educational Review*, 29 (Spring 1959), pp. 218-239.

Semiskilled: 22
  Machine operative, assembler
Trainee: 46
  Apprentices and other trainees in miscellaneous crafts related, among others, to construction and printing
Other white-collar: 4
  Draftsman

As this listing suggests, very few employers demand specific preemployment courses as a hiring qualification. Companies that take on trainees or apprentices in machine processes expressed interest in people with high school mathematics, a knowledge of blueprint reading, and some familiarity with tools or machine shop practice. They are represented on the list by the 68 semiskilled and trainee jobs. Beyond such general requirements, and the acceptance of high school commercial courses as training for clerical workers, only a few specific preparatory requirements are made, for such occupations as truck driver and oil-burner serviceman. For the unskilled job titles which were most frequently mentioned, little preemployment training outside of basic literacy is required. Whether job titles in the semiskilled and skilled categories would be more frequently mentioned if more preemployment training were available, is a point on which one can only speculate.

Employers themselves are quite obviously unclear as to their own desires in this matter. They tend to follow the conventional wisdom in giving general advice to the schools, in contrast to their specific attitudes about their potential employees. Employers in the sample group are no more likely than their counterparts in other cities to consider vocational course graduates finished craftsmen or mechanics. Indications are that school-based training in trade and technical occupations is not a complete answer to the development of work skills because graduates are in need of seasoning through actual work experience. This concept extends to new entrants at all levels, who are always considered green hands unready for skilled work. For example, in an article purporting to summarize the views of Deans of Business Schools there appears the following statement:

> While businessmen are cheered by the improving quality of today's college crop, including students with baccalaureate or advanced degrees in business, they emphasize that even the best prepared college man still must undergo supplementary training on the job.[18]

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[18] "What's Ahead for Business Education," *Nation's Business*, 52 (April 1964), p. 62.

And, in literature aimed at the teenage reading public, it is put this way:

> With ever-increasing competition for advancement, even if you do land a good position you'll probably find that you need more training, either on the job or at night school, to get ahead.[19]

Assuming then, that a young entry worker is actually employed, it is important to ascertain his opportunities for on-the-job training. The formal training offered by companies in the sample is reviewed in Chapter 3.

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[19] Newcomb, Robinson, "Good Jobs for High School Graduates," Condensed from *Changing Times, The Kiplinger Magazine. Reader's Digest*, 85 (July 1964), p. 130.

Chapter 3

TRAINING

INTRODUCTION

To develop a frame of reference for the analysis of the data on industry training of workers, the recent literature on this subject was surveyed. The findings pertinent to this study are limited because such literature as exists is devoted almost exclusively to "formal training," even though the consensus is that "the majority of private industry has apparently adopted no formalized training for its workers, relying instead on some informal system of training or obtaining trained workers from other sources."[1] As a result, the processes by which the majority of workers acquire occupational skills is relatively undocumented.

Research in the field is plagued by semantic problems. No two studies utilize the same definition, with the result that the distinction between formal and informal training is unclear and inconsistent. As one respondent to the U. S. Department of Labor survey put it:

> On-the-job training is such a big, broad area that it frightens me at times. I know the Department of Labor attempted to get some figures together about a year and a half ago, and the questionnaire they sent out was quite well done; the only trouble was we didn't know exactly how to answer it.[2]

This kind of confusion may result in an overstatement of the extent of formal training. Dauwalder, for example, reported that although 211 of 837 companies surveyed in the San Fernando Valley, California, replied in the affirmative to a question on the existence of formal training programs, after careful review of the data, only 44 were found to have a program "which actually trains on the job, rather than by a trial-and-error method."[3]

Throughout the literature are comments on the unavailability of reliable or comparable data. For a specialized study, the Department of Labor was confined to reporting on four companies after canvassing 100, because of the lack of pertinent company records.[4] Independent researchers report similar frustration in gathering sufficient material on company training practices, as, for example, in the unsuccessful attempts to measure expenditures on training discussed in Chapter 1.

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[1] *Training of Workers in American Industry, op. cit.*, p. 5.

[2] Read, William M., Director of Training, Atlantic Refining Company, *Nation's Manpower Revolution, op. cit.*, Part 6, p. 2159.

[3] Dauwalder, *op. cit.*, p. 56.

Notwithstanding these difficulties, enough data are available to afford some generalizations on the character of formal training. Significant current materials are listed in the annotated bibliography contained in Appendix II. At this juncture, the discussion will be confined to a brief summary of the major findings of the recent literature.[5]

Size of Establishment as a Factor in Training

There is general agreement on the positive correlation between size of establishment and the existence of formal training. At the extremes, 96 percent of the the largest companies (over 5,000 employees) offer formal training, compared with 11 percent of the smallest (less than 20 employees). Stated another way, 92 percent of workers employed by establishments with no formal training are working for companies of fewer than 500 persons.

Type of Training

The concentration of formal training in the largest establishments is related to the predominance of programs for managerial and supervisory personnel. With the exception of safety training, which is not occupational in the strict sense, management training is the most common offering, both for in-plant training and for tuition refund programs at outside institutions. It is so much a part of executive life in major corporations that in a recent novel of big business, a disappointed contestant for promotion comments on the predictability of the heirs apparent by their participation in formal training, ". . . they are the men who . . . get picked to attend a 10-month course in the humanities at the University of Pennsylvania. From then on the top for them is only a matter of time . . ."[6] Such insights are corroborated by the literature on the techniques of management training, which lean heavily on a variety of "human relations" programs and "games" designed to simulate potential executive roles.[7]

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[4] U.S. Department of Labor, Bureau of Labor Statistics, *Industrial Retraining Programs for Technological Change: A Study of the Performance of Older Workers*. Bulletin No. 1568. Washington, D.C.: U.S. Government Printing Office, 1963.

[5] The only national survey available is the U.S. Department of Labor's *Training of Workers in American Industry, op. cit.* All the statistical material referred to below comes from this source.

[6] Pearson, William, *This Company of Men*. New York: St. Martin's Press, 1963, p. 168.

[7] See, for example, House, Robert J., "Management Development Is a Game," *Harvard Business Review*, 41 (July-August 1963), pp. 130-143.

While large organizations concentrate on management training, training in smaller companies is more likely to center on specific skill acquisition. Companies with less than 500 employees account for about two-thirds of the 212,000 trainees in the skilled trades and better than half of those being trained in tool or machine operations and shop practices. Apprenticeship, still the most prevalent type of formal skill training, is also more likely to be part of the program of small organizations. More than half the apprentices are in companies of under 100 workers.

Training and Type of Industry

Of workers receiving formal training of all types, 55 percent are employed in goods-producing industries, with the manufacture of durables accounting for about two-thirds of this group. The number of trainees of all types, however, represents only 13 percent of all workers in manufacturing. The highest proportion of establishments with training programs are in finance, where 34 percent of companies reported formal training, and retail trade, with about 27 percent.

Training of Youth

Because formal training is relatively new and said to be growing rapidly, it is expected by many to play a more significant part in the development of the rising skill level projected for the economy. Whatever its importance, however, it would seem to have little significance for disadvantaged youth, in the face of the "now prevalent requirement of high school graduation for admission to industry training programs."[8]

Definition of Training

Most studies have included all types of training; this one, however, has chosen to focus only on those types likely to involve young entry workers without post high school education. For the purpose of consistency, a definition of formal training similar to the one used in the Department of Labor study was adopted. Formal training includes any prearranged system of instruction sponsored by the employer, or the employer in cooperation with unions or other outside agencies, designed to enhance the performance of employees in their current or future duties.[9]

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[8] *Manpower Report of the President, op. cit.*, p. 67.

[9] This is substantially the Department of Labor definition. The difference is that managerial, professional or other training most frequently reserved for college graduates was excluded, as was safety training. The definition was further clarified for the interviewers as, "any training where a specific group of people are called together to cover a specifically designed course of study, given by a specifically designated staff."

FORMAL COMPANY TRAINING OF FULL-TIME EMPLOYEES

The data on company-sponsored training for full-time employees are discussed under three headings: (1) Apprenticeship; (2) Other in-plant training; and (3) Training taken outside the company. Counting only these three types, 70 companies (36 percent of the sample) are currently offering training.[10] Fourteen offer more than one type, accounting for the total of 84 in the table below.

Taken as a whole, there is no significant difference among the cities. Hartford, however, has more companies with apprenticeship and outside training than the North Carolina cities put together, perhaps because of the greater proportion of durable goods producers.

Formal Training and Size of Company

As in other studies, there is a significant difference in size among companies offering training. (See Table 10.) Large companies are particularly likely to conduct their own formal training and therefore less prone to rely on outside facilities. Underlying the relation with company size may be some feeling that formal training is a luxury that only large and prestigious employers can afford.

One small employer commented that "only a big company can afford to pay for unproductive time." Compare this attitude with the statement in a text on training published by the American Management Association:

> Managements usually do not recognize training as a profit-making function. Too often training efforts are viewed paternalistically or as a fashionable mistress to be discarded when lean times appear.[11]

TABLE 9

COMPANIES OFFERING FORMAL TRAINING, BY CITY AND TYPE OF TRAINING

Type of Training	Total	Hartford	Winston-Salem	Charlotte
Apprenticeship	21	13	4	4
In-Plant	47	17	12	18
Outside	16	9	2	5
Total	84	39	18	27

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[10] The proportion of companies providing training is higher than the 20 percent in the Department of Labor study, notwithstanding the exclusion of managerial programs. This is attributable to the fact that the sample was designed to include as much training as possible by concentrating on manufacturing and large units in nonmanufacturing.

[11] Proctor, John H., and Thornton, William M., *Training: A Handbook for Line Managers*, New York: American Management Association, 1961, p. 16.

TABLE 10

COMPANIES OFFERING FORMAL TRAINING BY SIZE

	Size (Number of Employees)			
	Under 500		500 and Over	
	Number	%	Number	%
Formal Training Offered	31	22.5	39	67.2
Formal Training Not Offered	107	77.5	19	32.8
Total	138	100.0	58	100.0

CR = 5.6 $P < .01$

Except where new hiring is unusually limited, large companies in the sample are engaged in training. Of the nine who are not, most have little need for new blue-collar workers.[12] Layoffs in three companies caused discontinuance of training, except for management and supervisory personnel. One company has automated, decreasing its blue-collar and augmenting its professional work force. Another two have very stable work forces with little turnover.

Other Variables

The impetus to provide training among large companies is greater where turnover is high, but in small companies, high turnover is not associated with presence or absence of training.[13]

Whether or not companies offer training has no statistical relationship to their difficulty in filling jobs. This may be because, as Benson and Lohnes have pointed out, establishment of training is only one possible reponse to shortage.[14] Even large companies may elect other options. One company in the sample that employs more than 500 workers, with a majority of skilled employees, even though it has high turnover and difficulty filling jobs, has no formal training.

For small companies, any factor that might logically lead to establishment of training can be found among those who have not elected this course, as well as those who have. For example, six Hartford machine shops have apprentices and 14 do not. No single variable distinguishes the two groups, including size; percentage of skilled workers; skilled jobs hard to fill; ownership patterns; turnover; expanding, stable, or contracting employment.

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[12] Three large companies, while expanding, are relying on preemployment training rather than on-the-job training. This option will be discussed later on in this chapter.

[13] For further examples of the relation between turnover and training, see Bureau of National Affairs, *Training Rank and File Employees.* Personnel Policies Forum Survey No. 66. Washington, D.C.: The Bureau, 1962.

[14] Benson and Lohnes, *Skill Requirements and Industrial Training in Durable Goods Manufacturing, op. cit.*, p. 553.

TYPES OF COMPANY TRAINING: APPRENTICESHIP

Of the 21 companies in the sample with formal apprenticeship programs, most take the traditional form of a four-year, on-the-job training progression with related classroom instruction. Although three do not require related instruction (one each in printing, machining, and painting), they all meet the criterion of a formal agreement with the apprentice on training content, length of time, and wages. These criteria exclude companies where helpers, who pick up their skills informally by working under a journeyman, are sometimes called "apprentices." In addition to the companies in the sample, information was gathered through interviews with employer associations and union representatives.

The sample distribution of companies with apprenticeship reflects the relative importance of this method of training in the three communities. Thirteen are in Hartford; Charlotte and Winston-Salem together have eight. Part of this difference in emphasis stems from Hartford's greater demand for highly skilled workers in the metal trades. However, in addition to the difference in number of programs, there are variations in the way apprenticeship is handled that are related to the greater extent of union organization in Hartford, compared to the North Carolina cities.

In construction, for example, Hartford trainees are apprenticed to the Joint Apprenticeship Council, a union-management body. In North Carolina almost all construction apprentices are in nonunion companies where employer associations are completely responsible for training. Among the most active in Winston-Salem and Charlotte are the local branches of the National Electrical Contractors Association. The NECA views training as a major function and has developed extensive training materials. The standard electrician's apprenticeship is four years with 144 hours a year in related training. A five-year program is also carried on that extends training to new advances in automation and electronics.

In Charlotte, the Association of General Contractors has hired two full-time coordinators for apprenticeship and also finances the Piedmont Construction Apprentice Council to supervise apprentice training in all construction trades. Unlike the electrical industry, where apprentices are hired by individual companies, the Association of General Contractors maintains supervision, much in the style of the Joint Apprenticeship Council in Hartford.

The construction trades are somewhat underrepresented in the sample;[15] but of the four North Carolina general contractors, only one in Charlotte now participates in apprentice training. With apprentices in carpentry, bricklaying, and cement finishing, it still has to hire skilled tradesmen from outside. Since employment in these trades is available at higher wages before the apprenticeship is completed, dropout is extremely high.

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[15] In addition to the four general contractors, the sample includes four construction specialties—structural steel, roofing, painting and decorating, and woodworking. All but the steel company have small apprenticeship programs.

Concern about rationalizing apprenticeship has resulted in provisions for credit toward shortening the term of training in most trades, if the apprentice has relevant trade school or work experience, or if he can progress at a faster than normal rate. In Hartford, the Carpenters and Joiners Union proposed another kind of rationalizing innovation that would permit apprentices to work in good weather and go to school in bad, usually in the winter months. They would receive more schooling than they do at present, and their related instruction would be of greater usefulness if taken full-time than it is presently, one or two nights a week after a full day's work. The Union proposed to hire supervisors for apprentices on the job, and also to assist in setting up the school curriculum. Apprentices would be paid a fixed salary while attending school. The contractors were said to be enthusiastic about this proposal, but the State Apprenticeship Division would not give its approval.

In printing, apprenticeship is a traditionally important training method, but only two of the companies in the sample offer programs. One is a major newspaper; the other, the print shop of a large insurance company. The eight additional printing establishments in the sample are all small (under 500 employees) and all nonunion. Two have short training courses for related occupations—negative strippers, paste-up girls, and folding-machine adjusters. None require preemployment training; entry workers are generally required to be high school graduates and "trainable," and they learn their skills informally. While these small firms are characteristic of the areas surveyed, they may not be representative of the printing trades generally.

The sample includes at least one company in each city that trains sheet-metal workers through apprenticeship. Two manufacture, and a third sells and installs air conditioning and refrigeration equipment. The fourth is a roofing contractor. Sheet-metal mechanics are required in a number of durable goods production, repair, and servicing operations, and the demand for skilled men in this field is increasing. Of the apprenticeship programs surveyed, all have an 18-year minimum entry age, but only one requires high school graduation.

The coverage of the sample is best in metalworking companies. Of the 21 companies with apprenticeship, 12 train for the high metal trades (nine in Hartford and three in North Carolina). The major difference among these companies is in number of apprentices. Nine of them jointly are training 18 men, while the remaining three together have over 500.

One very large durable goods manufacturer in Hartford in effect trains skilled metalworkers for the whole area. Its apprentice school has turned out 500 graduates who are now working in plants all over Connecticut. The major courses are a three-year machinist program and a four-year tool and die program. The fact that the company provides its own related instruction and screens candidates for aptitude and academic requirements, gives the operation an institutional character much like a technical school.

A second Hartford company has more than 80 apprentices in such job titles as production machinists, tool-room machinists, and tool makers; and a third, with 28 apprentices, has even more classifications, including model maker and machine designer. Its five product and tool-design apprentices are actually receiving technical-level training. The positions are salaried, and the apprentices are expected to take 60 college credits at the University of Hartford on their own time. At the end of the program, they will perform technical engineering functions.

Almost all apprenticeships in the high metal trades are available only to high school graduates with mechanical aptitude and some background in mathematics. In a few shops, semiskilled employees have preference. Generally, however, the major distinction in recruiting is by size of firm. Large companies use a variety of methods to obtain qualified apprentices, whereas small shops take on only relatives and friends of employees. Where unions are present, they are organized on an industrial rather than a craft basis, and have little influence either on the establishment of training or on who is selected for training. Unlike the construction trades, for example, apprenticeship is not usually a matter for collective bargaining.

Attitudes toward Apprenticeship

Even in such a small group of companies, the variation in attitudes toward apprenticeship and appraisal of its major problems is remarkable. Some companies find apprenticeship too costly—these are mainly small firms with uneven production schedules. Others find it hard to attract apprentices, or hard to keep them from dropping out. And still others think that apprenticeship is too long for the level of skill demanded. For each of these, however, there is a spokesman or two for the opposite point of view. For these, apprenticeship is the method of choice, there is a waiting list of semiskilled workers within the plant, and dropouts run

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only about 10 percent. Their major complaint is likely to be that other companies pirate trained men away.

These variations in attitude, however, do not extend to one hard fact. Since they cannot meet their own requirements through this kind of formal training, all companies with apprenticeship continue to hire skilled men from outside. Large companies, of course, have other options. One has deskilled a number of operations and reorganized the work load so that a small number of skilled workers can supervise large unskilled or semiskilled groups. On long-run jobs, tape-controlled machines are being introduced to reduce the need for skilled workers.

Those companies with large apprentice programs are the least likely to complain about the attitude of their trainees, but spokesmen for small firms are likely to despair about the future. A typical comment is:

> Most kids are not interested in spending four years in training. They would rather get $1.75 to $2.00 an hour as semiskilled operators than start for $1.25 as apprentices even if toolmakers eventually make from $3.00 to $5.00 an hour.

This kind of complaint involves some contradictions. Similar contradictions are evident in the literature on apprenticeship. While the apparent consensus is that apprenticeship is declining (for a number of reasons, including diminishing appeal to youth), in California and New York there is a reversal of this national trend. Moreover, California reports "10 or 15 well-qualified youngsters for each opening that currently exists."[16] In the high metal trades, particularly, the qualifications for entry into apprenticeship are usually equivalent to engineering school. High school graduates who can afford to attend college and who have these qualifications will usually opt to do so. Conversely, those available for apprenticeship are those that are unable to finance a higher education. The economic pressure that keeps them out of college is likely to encourage dropout as long as more highly paid opportunities are available, and especially if training is interrupted by layoff. This is not a new story. A 1951 study of toolmakers found that the importance of apprenticeship as the channel of entrance to the trade had been declining and that many toolmakers considered the investment in training unjustified because of the lack of significant wage advantages and limited opportunity for advancement. Thus although substantial numbers of toolmakers had entered the trade under the influence of relatives or friends thus employed, many would no longer recommend it as a vocation.[17]

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[16] Hanna, Charles F., Chief, Division of Apprenticeship Standards, State of California. *Nation's Manpower Revolution, op. cit.*, Part 6, p. 1992.

There are two important questions that employers of such highly skilled workers have to ask themselves in the situation. First, what factors actually influence dropout? Are there techniques that can be appropriated from companies with higher holding power? Second, what are the alternative costs? Those who complain about the costliness of apprenticeship or other formal training may not always have calculated the price of overtime, turnover, premium pay for experienced men, or inefficient operation. While the costs of training are more obvious in unproductive time and spoilage, they may not be as great as these other factors put together.

TYPES OF COMPANY TRAINING: FORMAL IN-PLANT

The formal in-plant training offered by 47 companies in the study may be divided into three general categories:

1. Those where the training offered is largely for the female work force.
2. Those who offer training for all classifications of blue-collar workers.
3. Those who offer training for specific job classifications only.

Companies Training Female Workers

In 24 companies, the training offered to the noncollege graduate applies almost exclusively to females. In *insurance* (3 companies), training consists largely of orientation to company policies and practices and in such job-related topics as speed reading, grooming, and office etiquette. One company offers training for occupations in short supply, clerk-typists and keypunch operators. Clerk-typist training is open to employees who wish to be upgraded, and presently involves 15 people who are receiving 30 hours of training. The keypunch training is offered twice a year for new high school graduates, and involves 60 people a year in an eight-week program.

In *banking,* (five companies) training is offered for newly employed tellers (all females in the communities studied) and keypunch operators. Teller training lasts about one month and involves about 50 people per year in each bank. One bank also trains selected high school seniors who wish to become stenographers in a 40-hour course, one afternoon a week for 10 weeks. The majority become full-time employees and continue training on a department rotation basis, similar to management trainee programs.

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[17] Palmer, Gladys L., *et al., The Reluctant Job Changer: Studies in Work Attachments and Aspirations.* Philadelphia: University of Pennsylvania Press, 1962, Chapter IV, pp. 81-114.

In *department stores* (five companies), training is confined to one or two days of orientation for new employees and regular department meetings or training sessions in merchandizing, planned by a training director. More elaborate programs are also conducted, but these apply only to potential supervisors and college trainees. In two stores, although the training is similar, men are involved in significant numbers because of a higher proportion of appliance and equipment sales.

In *hospitals* (four), most training is at the technical level in such occupations as nursing and medical, laboratory, and X-ray technology. One hospital in the sample has started a four-week vestibule training program for male orderlies, a low-paying, high-turnover job. At the time of the survey, six men were in training. The hospital plans to start a new group each month and to institute a similar program for psychiatric attendants. In an even more interesting departure from general policy, another hospital is attempting to improve the image of hospital work for young males. Here, formal training is to be used as an instrument of upgrading the status of the occupation analagous to the now classical example of training for airline hostesses. A six-month course in medical maintenance is planned, for which high school graduate recruits are already being sought.

In *textile and apparel* (seven companies), formal training applies to semiskilled machine operatives, who are almost all female workers. Entry workers (and at times, employees requiring skill improvement) are trained in a vestibule setting, off the production line, by an experienced worker who has received special training as an instructor. Duration of training ranges from one day to as long as four months, in one case. Textile companies generally offer training for small-loom fixers. According to the training director of a large textile company, because job specifications vary from one mill to another, training is accepted as one of the costs of doing business in this industry.[18]

Companies Offering Training for All Classifications of Blue-Collar Workers

Of the five companies in the study that train virtually all levels of blue-collar workers, two are *telephone* companies with unique occupations. In addition to female operators, training is offered for framemen, linemen, splicers, and other technical operations by first-level supervisors or company instructors. Depending on the job, training may last from several days to six months. All employees are high school graduates selected after careful testing and screening. New employees are generally young, but few males have been hired in recent years since, unlike the situation among operators, turnover is low.

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[18] McGehee, William, "Textile Training," *Textile World*, 113 (February, 1963), pp. 56-59.

Extensive training is also performed by two *aircraft* companies where new workers receive two to three weeks' vestibule training for orientation to company policies and familiarity with tools and procedures. Both these companies prefer to promote from within, and promotion from the unskilled to the semiskilled level is based on informal training. In one, apprenticeship is the route to the skilled level; in the other, highly skilled men are hired from the outside, although the company does provide its own instruction in such subjects as blueprint reading, mathematics, and electronics. These two companies illustrate the experience-education relationship discussed in Chapter 2. With more extensive training offered, high school graduation is the general requirement; where the situation is more formal, dropouts may qualify but must be experienced.

The other example of overall training is in a small branch of a national *furniture* company, which provides step-by-step instruction for each of its jobs. The home office provides training for line supervisors who serve as instructors and provides a training manual for each job. The training period varies, but averages three months. The company promotes from within and requires neither high school graduation nor experience as a condition of employment. Applicants are screened by the local employment service, using the General Aptitude Test Battery. This last is an unusual case. The others where formal training is offered throughout the production group are larger companies operating in technical processes, typically those in the forefront of formal training. Missing from the sample are the large new product organizations, such as IBM, Xerox, Polaroid and others where formal training, albeit mostly of the technician type, plays an important role and from which much of the current impression of the tremendous extent of formal training in industry is derived.[19]

Companies Offering Training for Specific Job Classifications Only

Twenty-three companies, almost half of those that offer in-plant training do so only for specific job classifications. Since the needs that give rise to these courses are sometimes ongoing and sometimes specific to the occasion, classification is virtually impossible. Of those who train for entry occupations, for example, one large engineering company trains its new draftsmen in the special skills required by the operation. An airline gives three weeks of entry training to reservation clerks. This is the basic white-collar job in the organization; any of the 250 hired in 1963, for example, who were promoted, received a few days' additional classroom instruction at each step. All jobs require high school graduation and applicants are screened for intelligence and personality.

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[19] Serbein, for example, devotes an entire chapter to the training programs at IBM. Serbein, Oscar N., *op. cit.*

Two other companies train inexperienced blue-collar workers who are hired without specific preemployment preparation.

One is a local bus company that trains 15 to 20 new drivers a year. Three weeks of training by a supervisor is offered whenever a new group is formed. This company prefers hiring inexperienced bus drivers, but they must be high school graduates and "personable men of good character who can drive and have good safety records." The other is a large machine shop with a 45- to 90-day formal training program for machine operators. They are trained by foremen and setup men and sometimes are sent to trade school for such job-related courses as blueprint reading. Six were trained in 1963.

Half a dozen companies use formal training as a means of upgrading workers from semiskilled to skilled functions. Some, in effect, substitute it for apprenticeship. An airline company that hires trainees with a military or technical school background offers a progression that enables junior mechanics to become licensed, senior mechanics. Three Hartford metalworking companies train setup men, screw machine operators, and the like, in programs ranging from six months to two years. Candidates are carefully screened, and in one company are required to have had four years of high school mathematics. This type of training may seem preferable to the smaller job shop with an uneven production rate, because it does not involve the quasi-legal commitment of the formal apprenticeship programs.

Other upgrading courses turned up in the survey include the training of blue-collar workers as salesmen in a very small equipment manufacturing concern; the improvement of carpenters' skills in a large, nonunion construction company; and a 30-hour refresher course in art work, copywriting, and layout for employees of a major newspaper.

The endless variety of training that can be established is illustrated by two miscellaneous examples that resemble tuition refund programs. A small manufacturer and distributor of textile machinery offers a three-month, 18-session course in "the principles and operations of knitting machines." Six employees, all volunteers, participate each year after working hours. A large nondurable manufacturer offers after-hour courses in a variety of subjects, but mostly on an advanced level and attended primarily by craftsmen and technicians. Less than two percent of a work force of over 10,000 attend each year.

This resume of the in-plant formal training in the private sector indicates the amorphous nature of such training. Other than noting that, in general, only small numbers were participating in the programs offered and that with the exception of the few machine-trainee programs which appear to have been formed in lieu of apprenticeship, all of short duration, it would be difficult to find significant common denominators.[20]

It is the scattered nature of formal training for the noncollege male worker which appears most characteristic. Despite the reputed growth of formal training, for the hourly workers its nature has not changed substantially in the past decade. In 1954, the National Manpower Council reported that: "Training at the semiskilled level is generally a part of the production process and of an *ad hoc* character, rather than a part of a planned program of skill development."[21] It is difficult from these data to develop ideas of where such training programs may be most likely to exist or be established in the future.

Although employers were questioned on their reasons for establishing formal programs, the answers were most often vague, such as "a felt need." The lack of systematic determination of training needs has been commented on by critics of formal training in industry for some time. Walter R. Mahler, in a 1952 study of 256 companies, concluded that such decisions were purely subjective and seldom determined with any precision; he reaffirmed this finding in 1962 in another survey.[22] With the exception of the largest companies, and especially those with a high turnover rate associated with their dependence on female employment, formalization of training appears dependent on management attitudes.

Training in Government Agencies

The government agencies in the sample exhibit the two-track pattern characteristic of public employment. Workers at all levels have access to systematic upgrading through a progression of job classifications; for more skilled occupations, and particularly for the professions, educational and training requirements are standardized, and there is a separate upgrading track. Training programs are likely to be offered either as a recruiting device or for unique occupations. The government agencies in the study illustrate both these patterns. The State surveyed trains engineering and psychiatric aides, and laboratory assistants.

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[20] This accords with the findings of the U.S. Department of Labor survey as well as smaller studies both as to the percentage of employees participating and the average length of most nonapprenticeship skill training.

[21] National Manpower Council, *A Policy for Skilled Manpower*, *op. cit.*, p. 210.

[22] Mahler, Walter R., and Monroe, Willys, *How Industry Determines the Need for and Effectiveness of Training*. The Psychological Corporation, Technical Research Report PRB No. 929. New York, March 1952, and Mahler, Walter R., "A Critical Look at Training in American Industry." *The Journal of the American Society of Training Directors* 16 (December, 1962) pp. 3-10.

The municipalities train in the police and fire departments for new recruits, and in the water and engineering departments for upgrading.

For police and firemen, who must be high school graduates and meet other set requirements of age and physical condition, training involves at least several months of instruction by department supervisors. In one city, State licensing requirements have been the impetus for establishing *ad hoc* courses, whenever there are several people in the water department who want to take the examination and feel they need some formal instruction by the department.

TYPES OF COMPANY TRAINING: USE OF OUTSIDE FACILITIES

Although nationally the majority of students attending public vocational institutions are employed workers taking refresher or upgrading courses, the survey included only 32 companies that are making formal use of outside institutions in training their own employees.[23]

Half of these are companies with apprenticeship, where related training is given at the local trade schools. The other half are examples of the kind of mixed use of outside facilities that is increasing in the search to replace apprenticeship, or as a means for *ad hoc* acquisition of particular skills.

The 16 companies considered here represent three general types: (1) those that send workers to class for related instruction as an adjunct to formal or informal training;[24] (2) those using outside facilities for occupational classifications not included in their own training programs; and (3) those that rely entirely on outside training facilities. Several examples will be given of each type to demonstrate the range of possibility in taking advantage of existing programs or stimulating new ones.

Outside Training as an Adjunct to Company Programs

Training in New Equipment. When new machines are introduced, companies offer *ad hoc* training in their use. The representatives of the supplier may be employed for as much as a month to teach the new operation and see that the equipment is in proper running order. Although the study includes examples of such training, they were considered to be unique events and thus were not included in the count of companies offering training. Sometimes, however, the introduction of new methods takes place over a long period of time and new workers are continually needing to be trained. Two banks in the sample, who have introduced electronic data processing, send new employees for instruction in programing to the school maintained by their supplier, and supplement this training on the job in an organized program of instruction and upgrading.

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[23] This excludes generalized tuition refund arrangements, which are discussed later on in the report.

[24] Among these are four companies described under in-plant training that send their trainees outside for courses ranging from advanced mathematics to blueprint reading.

Informal Apprenticeship. Some 35 "apprentice" mechanics in a large trucking firm are required to take correspondence courses as an adjunct to their work experience. This is the only route to advancement. The company prefers promotion from within, although it has hired experienced maintenance men from the outside. While trainees do not have to be high school graduates, they will not be hired if they are draft-eligible, and they are screened for the company by the employment service.

A small metalworking company selects about three boys a year who are mechanically inclined and places them in the machine shop or tool room. They are sent to the local trade school four hours a week. Every 1,000 hours on the job (including training time), their work is reviewed and, if found to be satisfactory, they get a raise in hourly pay. While in the machine shop, they get general experience on lathes, drill presses, and milling machines. While this program is a route for movement from semiskilled to skilled status, others can also make the move, and the company hires some skilled people from outside. Most of the employees come through advertising and the employment service. The company would like to get trade school graduates, but feels that they tend to go to larger establishments.

A printing firm trains entry workers informally, but sends them to a local trade school one day a week for a brief period of time to pick up some special printing skills. This particular employer prefers to "train" all his workers, rather than hiring experienced personnel from the outside. He has a poor opinion of preemployment training and prefers his own system to a formal apprenticeship program, because he feels workers can learn in a year and a half what apprentices can be taught in four or five years.

Outside Training for Special Small Groups

Appraisers employed by a government agency who have not yet received State certification are sent to two-week training sessions offered by the local realtors' association. The course is designed to aid in passing the certification examination.

On an experimental basis, a large metalworking firm, which has both apprenticeship and other forms of in-plant training, has enrolled a few young men in evening trade classes, with a view to moving them into formal apprenticeship. This effort is related to furthering integration by enabling certain workers to pass the screening requirements.

Reliance on Outside Training

Eight to ten men a year are sent by a retail fuel oil dealer to a trade-association-sponsored training program for oil-burner technicians. The course runs two or three nights a week for a month. This particular employer noted that throughout the country, "The biggest problem in this business is the shortage of oil-burner technicians. There is no shortage of those who think they know how, but good ones are very difficult to find." He requires his technicians to be high school graduates; most come to him through personal contact. The local trade school offers a related course, but few people are taking it and, at least in recent years, the company has not used this as a source of new recruits.

To become a baker for a large manufacturer of food products requires completion of the Baking Institute's three-year correspondence course. Those who take the course must be high school graduates, with at least four years' experience in the plant. They are screened successively by the supervisor, the personnel department, and the vice president. The company pays the beginning cost; the employee pays the balance, but the money is refunded if he completes the course. Five were trained in 1963. Upon completion of the initial course, the employee can take an additional two years of training in baking chemistry. The company has a large complement of female employees who are not required to be high school graduates, but is planning to institute this requirement in the future.

A manufacturer of electrical equipment uses a local trade center to train machinists. Workers volunteer for this opportunity, but they are screened through testing and interviewing. The entire training program takes two years to complete, with students upgraded at intervals as they complete individual courses. Six months after completing the entire course they become second-class machinists. They can then advance to lead-men. Beyond the planned course, some continue to attend classes to add to their technical knowledge. This company prefers that students stick closely to vocational courses. After some students were enrolled in a speed reading course, the company decided to specify exactly which shop courses the students must take. This particular company is a prestige employer and has no difficulty finding people.

Most new workers are recommended through personal contact, but some are also recruited through the employment service. The company demands only a ninth grade education and prefers promotion from within to hiring experienced workers.

A large trucking firm combines use of an outside training facility with an unusual recruitment method. All new drivers are "requested" by drivers already in the company's employ. They may be other employees working on the "dock" or relatives or friends. In either case, the recruit must attend the Truck Drivers School maintained by the North Carolina State College, if he has not already done so. This school, started at the request of the industry, trains students for one month at a tuition cost of $200 for in-State and $250 for out-of-State residents. The company lays out the cost of tuition, but it is deducted from the driver's wages once he is employed. For the first six months of his employment, he must drive with the man who requested him. This is not a training or probation period, however, and he is later free to team up with someone else.

OTHER TRAINING

The provision of formal training programs does not exhaust the possibilities open to employers either in recruiting trained workers or in encouraging the upgrading of current employees. Most of these options, like the programs described in the section on outside training, involve the cooperative use of community facilities. Again, attitudes of employers toward these opportunities and the agencies providing them are mixed.

Tuition Refund

The widest use made of community educational facilities in the sample is through tuition refund programs. This is in line with the national trend, according to a recent survey finding that expenditures for such programs by American business "surpassed all other benefits."[25] As a matter of "good company policy," 66 firms (34 percent of the sample) pay all or part of the cost of courses taken by their employees at approved institutions or by correspondence. The larger companies are more likely to provide this fringe benefit, particularly in Hartford and Winston-Salem. In Charlotte, where significantly more companies offer tuition refund, the majority that do so employ under 500 workers each.

Typical policy requires that courses be job-related. Completion is related to upgrading and promotion only indirectly, but as one employer put it, "It usually turns out that those who are going to be promoted anyway are generally the ones to take courses." In some cases, "upgrading" is interpreted as being "of more use to the company," rather than actual promotion of employees.

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[25] From a report of a National Industrial Conference Board survey, *New York Times*, July 6, 1964.

Very few companies furnished detailed information on the use of tuition refund; many apparently keep no records on exact numbers enrolled at any one time, on what institutions are attended, or on what courses are taken.[26] The typical response was that only a few employees are enrolled, and these generally from the white-collar ranks. Blue-collar workers taking courses are more likely to be enrolled in low-fee public institutions, such as trade schools, and may be taking courses on their own. Tuition refund, in any case, is apparently more attractive to management, technical sales, and clerical personnel likely to enroll in fee-charging institutions.

That tuition refund can be used for broader purposes is demonstrated by one North Carolina firm with seven workers enrolled in basic literacy courses. For the most part, however, it is only those employees with clear promotional abilities that become involved in this form of adult education.

The lack of records of tuition refund programs reflects the general absence of evaluation of formal training. Its worth, according to the consensus of researchers in the field, usually is judged by observations of supervisors or, less frequently, by the reactions of participants. "The absence of evaluation from the industrial scene is even more surprising when we consider the dollars spent either directly or indirectly by American industry."[27] Although critics react with a mixture of shock and dismay, the lack of systematic appraisal seems to indicate that training is considered a part of a general system of incentives and rewards not directly connected with the primary concerns of the profit-making function. The employers in the sample were, by and large, unable to furnish significant information about the relation of formal training to turnover, efficiency, or promotional practices in specific terms. While consensus may exist as to the merits of all educational experience, the practical significance of these programs cannot be assessed within the limits of present data-gathering procedures on the part of employers themselves. As one training director has said, "Unfortunately, the training field is one in which it is easy to confuse activity with accomplishment. The number of people trained is a meaningless statistic."[28] While judgments concerning the quality of formal training in the sample cannot be made, it is clear, on a purely quantitative basis, that it plays a minor role in development of skills, particularly in the nonmanagerial, nonprofessional categories.

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[26] The lack of records is a frequent complaint of researchers in the training field. For example, see Dauwalder, *op. cit.*, p. 35.

[27] McGehee, William, and Thayer, Paul W., *Training in Business and Industry.* New York: Wiley, 1961, p. 256.

[28] Reed, William M., *Nation's Manpower Revolution, op. cit.*, Part 6, p. 2147.

In addition to formal training sponsored by employers, either on the job or in outside institutions, mention has already been made of the many individuals who attend classes on their own initiative. It may well be that they do so in the hope of upgrading or changing to a new and better job in another organization. This kind of self-selection may be related to opportunities in companies that provide "informal training" and promote from within. Whether or not their expectations are met, the knowledge of openings is an important impetus to enrollment in formal courses outside.

The study focused on events within establishments, and therefore offers no material on worker mobility between plants or the effect of changing jobs. Within plants, however, there are considerable data on informal training and upgrading patterns. These furnish the means of rounding out the patterns of opportunity for young entry workers and are discussed in Chapter 4.

Chapter 4

INFORMAL TRAINING

The survey conforms to other recent studies in finding that a minority of workers acquire occupational skills through formal on-the-job training, either at the entry level or for upgrading. There is a consensus that the large majority, and especially blue-collar workers, learn on the job through observation, trial and error, and irregular assistance from colleagues and supervisors. This process has come to be called "informal training." Studies based on visits to plants (rather than mail questionnaires) indicate that no new or more systematic methods are employed when the process is labeled "informal training" than when it is simply called "learning on the job."[1]

For entry workers, informal training means the assignment of a new worker either to a supervisor or an old hand for a brief period of breaking in. From the description of jobs for which youth are hired, and indeed for all new hiring at the entry level, it is apparent that very little instruction is required. Among the companies in the sample, a few have made more conscious attempts to plan this stage. One machine shop, for example, hires new workers as helpers and organizes their indoctrination in a sequence of job assignments covering a six months' trial period. This is reenforced by pay raises for satisfactory progress at two-week intervals. Such a trial period is utilized by a few companies where the work force consists almost entirely of skilled men. In other cases, where new workers are hired as helpers, the informal training scheme reflects traditional apprenticeship patterns, with the employee moving from helper to skilled worker, but without a systematic plan for his progress.

Where training is informal, promotion is often a matter of individual initiative in demonstrating capability for a higher level job, and less frequently part of a conscious plan on the part of management to earmark certain unskilled workers for future promotion. In organized plants, collective bargaining agreements may include mandatory bidding-up, on the basis of seniority; in a few non-union shops, company policy requires the posting of all new openings for bidding purposes.

With traditional methods of acquiring skill in large measure unchanged, questions arise as to their appropriateness in a period of rapid technological change and increasing size and complexity of business. Can a worker learn through on-the-job experience all he needs to be productive as an entry worker, and can this experience enable him to move up the occupational scale to the limit of his ability and initiative? A worker has a choice whether to further his progress up the occupational ladder by continuous employment with one company or to change jobs. Since the survey furnishes no data on job changing, the findings relate only to opportunity for upgrading within a given organization.

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[1] Mellenbruch, P. L., "So This Is Modern Training," *Personnel Journal*, Vol. 39 (December 1960) p. 309 ff.

ORGANIZATIONAL FACTORS INFLUENCING UPGRADING OPPORTUNITY

For those already in the employ of an organization, the extent of progress in skill acquisition appears to depend on two major factors—the composition of the work force and the policy of the organization. Included in "composition of the work force," are the proportion of workers at different skill levels, the continuity from one level to another in skill development, and the division of work between men and women. "Company policy" relates to design of entry jobs, selection of workers to fill such jobs, preemployment requirements for higher job levels, and practices with respect to upgrading that can convert possibility into reality.

The analysis of these structural factors is directed toward establishing basic organizational patterns, without regard to whether youth are hired, or indeed, whether job openings exist at all. The focus is on paths for upward mobility of those already employed in an organization. Because this analysis depends on the interpretation of answers to open-ended questions, as well as factual data on the composition of the work force, the numbers involved are less significant than the variety of patterns and the meaning of these patterns for new workers. The analysis centers entirely on the male worker, since most female employment is outside the upgrading process as a consequence of high turnover and intermittent attachment to the labor force.

Composition of Work Force

In the organization of work as a whole, the manifest trend is toward discontinuity. The blue-collar and clerical work groups in large organizations are separate not only from each other, but also from technical staff and middle management; and the number of individuals at the very top is so small that the traditional structure now looks more like a church steeple standing alone over a flattened pyramid. Apart from such major discontinuities, upgrading *within* the nonmanagerial male work force generally requires that an organization have at least one continuous sequence of jobs in at least one major function of the organization, beginning with entry level jobs for noncollege males and extending to skilled blue-collar work. For the purposes of the study, employer definitions of "skilled blue-collar work," even though inconsistent, were accepted, because a given job in a given organization may represent promotion through added responsibility or higher wages, even if there is no increase in skill level.

Of the sample as a whole, 72 percent were considered to have a continuous male job sequence. Fifty-five companies, however, lack this attribute. Of these, 21 are in nondurable manufacturing where skilled jobs exist only in maintenance and where female production workers are an important factor. Eighteen are in white-collar financial and trade organizations where male employment is characteristically segmented into blue-collar, low-level white-collar, and managerial jobs, each following separate tracks. Twelve are in service industries—in hospitals, where preemployment educational requirements differ for each function; and in food, hotel, and laundry operations, where different jobs involve unrelated skills. Four miscellaneous companies complete this group, but in general it promises little for noncollege male employment.

Upgrading Policy

Having determined the occupational structure, the other important factor in upward mobility is the nature of company policy. When at least some entry workers are candidates for upgrading, regardless of whether the policy is implemented through training or formal procedures for bidding up, the company is considered to have a generally positive upgrading policy. This definition applied to the sample describes 79 percent of the companies.

Interaction of Work Force Composition and Upgrading Policy

The two basic elements were considered individually and then combined to give a three-level score—the most closed structure defined as lacking both a continuous sequence of male jobs and a positive upgrading policy; the middle or neutral level, with one factor but not the other; and the open organizations, with both. Without attempting to solve the riddle of which came first, occupational structure or upgrading policy, as might be expected, there is considerable overlap between the two, with 126 (64 percent) positive on both counts, and 31 (16 percent) negative on both.

The remaining 38 (19 percent), which are positive on one count but negative with respect to the other, indicate that structure and policy are not absolutely dependent on each other. Even where the typical occupational pattern is unfavorable, 24 companies demonstrate that positive upgrading policies can be adopted. Among these are a retail trade concern with a personnel policy expressed in these words, "We don't want anyone to make a career in the stock room," especially interesting because another branch of this organization in a different community views the personal and educational attributes of sales, sales support, and administrative workers as too dissimilar to permit promotion except within very narrow limits. Two hospitals included in the study (see page 66) have opposite policies that also demonstrate available options. In one, the personnel director is endeavoring to build career lines into nonprofessional male jobs. He has already succeeded in creating middle-level administrative positions as a point toward which unskilled males can develop, a process which will be implemented by formal training in the near future. In the other, the personnel man sees the whole structure as inevitably discontinuous, "You can't upgrade a porter to a doctor."

The manufacturers expressing a positive policy toward upgrading in the face of occupational discontinuities range from the largest to the smallest. Through formal training, bidding up, or the systematic selection of candidates for better jobs, they have overcome some of the problems inherent in the job structure. One manager of a needle trades plant, with female sewing machine operators and males employed either as laborers or skilled mechanics, said that notwithstanding the fact that entry male jobs in his company are filled almost entirely by dropouts, he looks for anyone with potential, and will move such a person along even to the extent of creating a new job level. His attitude is summed up by the following statement, "Any boy who is bright enough to talk back to me gets promoted," and he added parenthetically that he would also congratulate anyone with the gumption to quit and search for a better job, because the only way for a man to get ahead in the textile and apparel industries is to change his place of employment.

operators and males employed either as laborers or skilled me-

While policy can overcome, in part, a disadvantageous job structure, it can also work against a favorable one. Turning to those 14 companies which have possibilities for upgrading in terms of their occupational structures, but are negative in their policies, almost all are engaged in manufacturing and are essentially male organizations, relying heavily on skilled craftsmen. These companies find it more expedient to hire at the precise level required for each job. A few mentioned the possibility of an "exceptional" worker crossing occupational lines, but this can hardly be construed as a positive policy since exceptional people can be expected to triumph over ordinarily insurmountable barriers. In these organizations, unskilled entry jobs are considered dead ends, are characterized by high turnover, and are filled by workers whom the employer judges to be untrainable.

In summary, analysis of the most general factors in occupational mobility shows 64 percent of the organizations to be relatively open, 20 percent mixed, and 16 percent relatively closed, both by a discontinuous male work structure and a policy tending to reenforce the difficulties created by such a structure. Those classified as relatively open show no significant variations either in type of business or size from the total sample.

SOME FURTHER REFINEMENTS OF OCCUPATIONAL STRUCTURE AND POLICY

The first stage of the analysis yielded 141 companies with a continuous sequence of male jobs in at least one central function. The second stage seeks to differentiate further among these companies ostensibly offering upgrading opportunities.

The Proportion of Skilled Workers

As a first step, the total sample was divided into three parts on the basis of the proportion of skilled workers to the total production or nonmanagerial group: those with very few or no skilled jobs; those predominantly skilled; and those with some reasonable proportion of skilled jobs. The extremes were narrowly defined, with the category "very few" including less than 10 percent of the work force, and "predominant," at least 90 percent, leaving the range from 11 percent to 89 percent as "reasonable." The wide range of the "reasonable" category was designed to obviate the problem of inconsistent definitions of skills among different types of business in the sample. Looking once again at the 141 companies with a continuous sequence of male jobs, 29 were rated as having few skilled jobs and 32 were overbalanced in the direction of skilled occupations. Thus, even with the extremes narrowly defined, the original group with a continuous male sequence was reduced to 76 companies with both sufficient entry jobs and skilled jobs to allow for realistic upgrading possibilities.[2]

Relationship of Skilled to Unskilled Work

Another refinement of the question of continuity in the male occupational structure is the relationship of skilled to unskilled work. Of the total sample, 45 (23 percent) have skilled workers employed only in occupations outside the major work sequence (such as in maintenance), and 134 (68 percent) have skilled personnel whose work is either in the major function of the organization, or at least related to other jobs.[3]

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[2] Four companies were omitted at this point because of insufficient data.

Most of the 45 companies whose skilled workers are outside the major work sequence are those with discontinuous structures, as defined in the first stage of the analysis. But 14 organizations have been able to build career lines from unskilled work to skilled jobs in spite of the difficulties involved. For example, a drug manufacturer has divided the skilled mechanical and maintenance jobs into levels, beginning with unskilled helpers and allowing for a trainee to move up. A transport company has instituted a similar system for helpers designed to allow movement from physical work to mechanical work through on-the-job experience. Three of the largest companies in the sample provide a track by which men may move to what otherwise would be unrelated skilled work in the area of maintenance.

Sex Composition of the Work Force

Of the total sample, women are the single largest group in the work force of 50 companies (26 percent), and significant in number, although not the largest numerical group, in 35 others. These companies include those where women perform essentially repetitive tasks in either blue-collar, clerical, or sales functions. All but 19 of those in which women are the largest group were classified originally as having a discontinuous structure for males. Of these 19, 8 also lacked a reasonable number of skilled workers; and in 2, skilled workers were not involved in a major function. Thus the final count of those companies having a continuous sequence of male jobs, a reasonable proportion of skilled workers who are engaged in a major function of the organization, and where the organization is not dominated by a female work force, turns out to be 65.

Policy with Respect to Unskilled Workers

Because of the nature of the sample and the difficulties encountered in attempting to assess structural characteristics, the numbers referred to above are not statistically reliable, except as an indication of the growing problems of unskilled young entry workers. Turning to the question of upgrading policies, numbers have even less relevance, since the options chosen by employers have infinite variety. The elements upon which such a policy is built, however, are important to explore.

Differences in upgrading policy begin at the point where new workers are hired. While only 21 percent of the sample reflect a generally negative attitude toward promotion from within, the group is enlarged when attention is focused on unskilled jobs as the point of entry. For 52 additional cases (or 27 percent), unskilled jobs are dead ends for all except the unusual person. Upgrading opportunity begins with the semiskilled level, or in the case of youth, is limited to those who can qualify as trainees or apprentices. Such unskilled entry jobs as stockroom clerks and sweepers are completely without a future.

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[3] The data were insufficient to include 17 places (9 percent) in this classification.

In a smaller number of companies, 14 (7 percent), the same jobs are filled only by candidates with potential for upgrading. These are primarily in new or unique businesses, but here too, the young entry worker is subject to rigid screening in terms of education and aptitude because of the long training period envisaged by the employer.

One employer summed up the problem of the unskilled in many organizations, "A boy who wants to get ahead will not start at the unskilled level but will go to trade school and come equipped with a skill." In several organizations where all unskilled work is a dead end, jobs are filled with older, presumably more stable, men who have given up any hope of being upgraded. Employers are prone to say that the caliber of unskilled applicants militates against trainability. After all, said one, "No one of any ability would take a job at the wages we pay in a warehouse." Again employers have options. They can choose to use unskilled work as a dead end characterized by high turnover with low wages and can continue to complain about the low quality of the applicants or their instability, or they can move to cut turnover back by redesigning personnel practices and the jobs themselves. Compare two machine job-shops in which one personnel man's policy is, "It's cheaper to hire skilled men, no matter what you pay them, than to train them and lose them," with another in the same community where the personnel policy is that anyone hired who cannot be promoted is a hiring mistake.

The largest group in the sample, about 59 percent, fall into a middle position on the question of upgrading the unskilled. They include those where there is only one sequence of jobs permitting upward mobility, such as the loom-fixer track in textile mills, as well as companies in which upgrading the unskilled depends on the individual case and a supervisor's judgment of suitability for a new level of work.

Development of Skilled Manpower

Quite apart from how entry workers are handled, there are differences among employers in their methods of developing manpower to meet their requirements for skilled workers. For about 20 percent of the sample, all skilled men are hired from outside, or come up through formal apprenticeship. In these cases, upgrading might be possible from the unskilled or semiskilled level, but barred beyond this to those without prior formal training or experience. This pattern is common in many of the job-shops in metalworking. It is characteristic both of organizations that appear pyramidal in shape and in those in which the work force is almost entirely made up of skilled craftsmen. As an indication that even long-accepted beliefs can be challenged, one large employer, newly settled in the community, found it possible to develop toolmakers by on-the-job training and upgrading through a series of job levels, and another has experimented successfully with concentrated two-year training, thereby shortening the usual apprenticeship period. Similarly, a food processor, employing only a few skilled men in a mass production industry, claims he had found it better to plan a sequence of promotional steps even though it applies to very few workers, than to be forced to look outside to find replacements. The personnel man smilingly added that he is happy to help out a competitor, "by lending one of our skilled mechanics when they are stuck."

About 20 percent of the sample acquire all their skilled workers through upgrading from lower, though not necessarily entry, levels. Included in this group are the companies engaged in unique operations, some very large organizations where promotion from within is viewed as an aid to employee morale and loyalty, and some with mandatory bidding up.

Again, the largest group is mixed in policy. About 45 percent of the total sample indicated that they hire from outside, they upgrade through apprenticeship, or other training methods, or they do both. In the words of one employer, "We follow an opportunistic hiring policy—if a skilled man applies, we hire him; if one of our own men shows promise, we train him. And our preference depends on the individual case." Most company spokesmen indicated preference for promotion from within. But their attachment to this policy is questionable when they add such demurrers as, "We would like to promote from within, but most of them are not worth considering."

An interesting variation in policy occurs in a few companies where upgrading consists of increments of pay for length of service, rather than change of job function.[4] Rewards for stability were mentioned in trucking, construction, food processing, and even for service jobs such as waitress. In all cases where such information was volunteered, other opportunities for promotion are limited. Upgrading through wage increase may be more common than the data suggest, because the responses were volunteered rather than elicited by the interviewers.

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[4] See, for example, Palmer, Gladys L., *et al.* *The Reluctant Job Changer: Studies in Work Attachments and Aspirations*, *op. cit.*, 1962, Chapter V, for studies of vertical mobility which indicate that downward intergenerational mobility may be greater in the United States than in Europe, although lower ranking jobs may pay more in compensation for this.

The Limits of Upgrading

The study's focus on youth resulted in primary attention to the lower job levels, but some data were gathered on the upward limits to which young entry workers might aspire. These limits were classified by the frequencies with which foremen are promoted from the ranks, and promotions occur above the level of first-line supervisor. Although current literature pertaining to training of foremen indicates that in many companies first-line supervision has become the entry level for recent college graduates,[5] this was true in only 11 organizations in the sample. In two-thirds of the organizations, first-line supervisor is a promotional possibility for production workers, although many commented on the tightening of educational requirements for this job in the future, especially as foremen come to be considered part of the managerial group. The study may not reflect current changes in this regard because of the inclusion of relatively few companies with over 10,000 employees, and the small number engaged in highly technical processes. Foremen, of course, are not always former skilled workers. Large companies may choose supervisors from a particular work group, with the result that there are unskilled and semiskilled foremen. In fact, the title "foreman" now includes a wider range of job responsibility than it did formerly. In one company, for example, there are two kinds of foremen—one, a young engineering graduate, whose job represents the first step up the managerial ladder, and the other, a skilled production worker from the ranks, on the theory that practical and theoretical backgrounds need to be combined for adequate supervision.[6]

For most workers, first-line supervision represents the outer promotional limit. But in about 22 percent, promotion beyond this level is a frequent practice. Among these organizations are trucking companies, and those with a distribution function carried on by route salesmen or canvassers. The truck driver is generally a candidate for an administrative post when he is over-age for driving, although transportation companies commented on the narrowing of such openings as more college graduates are attracted to the field. (Conversely, more managerial openings may be available to the noncollege male in retailing as this work loses its appeal to college graduates.) Ordinarily, the high wage scale of union truck drivers and other powerfully organized groups such as printers, works against upgrading, since office jobs of greater responsibility are compensated at a considerably lower rate of pay. The early age at which drivers become superannuated encourages movement into the white-collar ranks in a manner not characteristic of other high-paid, blue-collar work. Route sales is still a wide open pathway to a responsible job. It is a single track limited to high school graduates who are judged to have the appropriate personality. The minimum hiring age is 21, but companies prefer them to be older, married, and with experience because they work without close supervision. Executives of food, fuel oil, laundry and other products or services sold on a door-to-door basis, are still frequently drawn from the ranks of salesmen.

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[5] See, for example, Henderson, Philip E., *The Foreman in Small Industry*, U.S. Department of Commerce, Small Business Administration, Series No. 14. Washington, D.C.: U.S. Government Printing Office, 1962.

[6] For further comment on the redesign of foremanship see Perry, John, "New Patterns of Supervision," *Personnel* 39 (September-October 1961), pp. 30-37.

In 27 percent of the companies, upgrading is possible because there are no set educational or other requirements for managerial jobs, but the frequent comment is that "it hasn't happened lately." In the remaining 47 percent of the sample, upgrading is unlikely, because all above the rank of foremen are college graduates, or in the case of some small companies, the few managerial jobs are reserved for family members. Although several organizations were quick to volunteer the information that the company president did not attend college, they indicated that times have changed and with business becoming more complex, college graduates are now actively recruited for entry posts at levels which formerly were rewards for long service. The educational barriers between hourly and salaried workers are stated in terms of the increased formal education required for managerial functions, or the low ability or present day high school graduates.

A TYPOLOGY OF EMPLOYMENT OPPORTUNITY

From the two-stage analysis of occupational structure and upgrading, a series of types for classification of the sample has been constructed. The types synthesize a number of elements but are based on dominant features of the organization that impede or enhance the possibilities of youthful jobseekers. The first five are all variations of structure militating against advancement of unskilled male entry workers. The last type is a residual category, made up of two kinds of organization—those having pyramidal blue-collar structures that lend themselves to a favorable upgrading policy; and those with discontinuities (similar to any included in the first five types) that have sought to overcome the unfavorable effects of their own occupational structures.

No conclusions can be drawn from the relative numbers of each type. Representation of a given type may be small in this sample, but important in others. Furthermore, additional types might exist that do not emerge from this study. The types that are described, however, have significance for those seeking ways to overcome impediments to youth employment, both within organizations themselves, as well as in the community at large.

Type I—Female White-Collar Dominant

This group includes banks, insurance companies, department stores and like organizations, in which middle-level positions are filled by young girls with a high rate of turnover, who block the upward movement of the lowest level of male entry workers. Although employers in this group complain about turnover, they may accept its inevitability by saying as one did, "Men are not interested in banking anymore, except at the managerial level"; or they may move toward replacing girls with mature women (even to structuring jobs to a part-time basis); or seek to replace human labor by machines. The heart of the operation is repetitive, clerical work, with little possibility of upgrading and therefore deemed more suitable for females not so strongly attached to the labor force. Blue-collar workers are so insignificant in these organizations, that in the words of one company, "It is not worth building a hiring pattern for them." The jobs that do exist are generally dead ends. Formal training, strongly entrenched in this field, is related to clerical, professional, and managerial employment. Characteristically, low-level entry jobs are useful to the young male worker only as general work experience before going on to other employment. Of the sample, 11 of the 15 companies in Type I were employers of over 500 workers. Although smaller organizations, underrepresented in the study, might be more open (particularly in retail trade), the trend toward larger units must be reckoned with.

> *Prototype: Insurance Company*
>
> Female clericals account for approximately 60 percent of total employment, and males account for 37 percent. Of the 780 male workers, 600 are managerial, professional, or sales. Only 7 percent of the total work force occupy positions in janitorial, mail, and supply room work and a few in building maintenance mechanics. Experience is unnecessary but a high school diploma is preferable for males, and required for females. A

separate training department handles the training of clericals and professionals. College recruits are considered managerial trainees. In-plant training is supplemented by tuition refund opportunities at local universities, utilized mostly by those already holding a college degree. Company expects that manpower needs will stabilize because of the growth of electronic data processing.

Type II—Separation of the Unskilled (Boys) from the Skilled (Men) by Female Blue-Collar Workers

The 36 companies (19 percent) in this group are in manufacturing and services. The classic examples are in the manufacture of consumer nondurables, as, for example, a food processor with 420 female semiskilled workers and only 40 semiskilled men bridging the gap between 35 unskilled and 50 skilled men. In this situation, the way for a male to rise to skilled work is through formal training, frequently limited to a few apprentices. The largest companies of this type are less closed than smaller ones by virtue of greater job differentiation, and because as major employers, they are more often engaged in training. Even here, however, the potential exists only in a narrow range and is subjected to keen competition. As one such employer remarked, "We have our pick of the local crop of bright boys."

Occupational structure is not so powerful a determinant as in Type I. The option of whether to use men or women in blue-collar jobs is freer from custom. While the white-collar employer feels that females offer the literacy he needs at a relatively low price, in factory work, wages may be the same for men and women and personal and educational attributes are not as important. What seems to be back of the choice of women is their willingness to do monotonous work, another way of saying that long-range plans need not be made for them. Men, in contrast, present a problem with upgrading, as pointed out by one employer who is "careful not to hire too many boys for the same job level at once, because if you can't promote them they will soon quit, at least the better ones." While the national trend has been toward increased employment of females, a few companies challenge the cliche that women are better at work requiring finger dexterity. One needle trades manufacturer said that men are better sewing machine operators, but American-born boys do not consider this a man's work. Another, in electrical manufacturing, is phasing out female assemblers acquired during World War II and replacing them with men, because the women stay at the same level and do not furnish the company with potential skilled craftsmen.

In addition to deciding whether or not to use women, an employer can also choose whether or not to build links between male jobs. One electrical manufacturing company with almost identical sex composition as a competitor in the same area, actively provides for upgrading by informal and formal training. Feeling that apprenticeship is not sufficiently attractive to youth, he has resorted to selection of unskilled males with potential; and by breaking down skilled jobs in such a way that the lengthy period ordinarily required can be handled in shorter segments, such trainees may progress to another level, after some experience.

Once having opted to use females wherever possible an employer can still mitigate the impact on male upgrading to some extent; but in all probability such an organization will have far less general opportunity for the average young man than a predominantly male organization.

> *Prototype: Electrical Manufacturing*
>
> Out of 2,000 employees, 40 percent are male, and of these 180 are in the managerial group. Female assemblers account for 1,100 of the 1,800 production workers. More than half of the 620 blue-collar male jobs are in the skilled category, including tool and die makers and machinists. Unskilled males can be dropouts trained in a few days for the lowest level of assembly work. Those with a high school diploma could become the foremen of a low-skill group, but movement from unskilled or low-level semiskilled is highly unusual since it requires education, training, and experience, qualifications not held by those hired at the unskilled level. Skilled men are hired only with experience, acquired in a smaller shop, and after completion of a trade school or apprenticeship training program.
>
> The company carries on an apprenticeship program for two toolmakers, both relatives of employees. Skilled men become foremen or move to office jobs if they are willing to study evenings and raise their educational level. This has been done by a few who have become engineers on their own time.

Type III—Male Organizations with Undifferentiated Low-Skilled Jobs

The sample included 25 (13 percent) companies in this category. Such organizations are found in manufacturing, transportation, and some services, where the work is almost exclusively male and no skilled craftsmen are involved. The major tasks require primarily physical labor, tending of simple machinery, or such widespread "skills" as driving a vehicle. Except for age restrictions connected with vehicles, there are usually no educational or other preemployment requirements. Frequently, however, the work force is recruited mostly among older men, or consists of men who have long been employed.

The anomaly in this group is in the transportation field. Even though their jobs are identical and their wages are set by union contract, long distance drivers are sometimes classed as skilled by their employers, but just as frequently as semiskilled or unskilled. In any case, although they may outearn the skilled craftsmen in the area, they are not part of a developmental sequence, and are therefore best included with this group.

The basic problem for the worker in such organizations is the lack of opportunity for skill acquisition. His upgrading is limited to wage increments. More important is the fact that these are the workers vulnerable to technological change as in the now famous example of automation in the meat-packing industry.

> *Prototype: Moving and Warehouse Company*
>
> No skilled jobs in an organization of 200 workers; 75 percent of hourly workers are classed as unskilled, and the balance as semiskilled. There are no educational requirements for employment, but all new hires must be experienced and have union membership based on this experience. Men work as casuals over a period of time until they accumulate 30 consecutive days of work with one employer. The employer is careful not to hire anyone on a consecutive basis unless he has a permanent opening. Because jobs are undifferentiated, upgrading potential is limited to moving out of the hourly group and into a supervisory post. Managers usually come from the ranks, but there are very few openings.

Type IV—Predominantly Male Organizations with Undifferentiated High-Skilled Jobs

This type is the mirror image of Type III. Here too, jobs are relatively undifferentiated, but all are rated as skilled. This monolithic structure tends to occur most frequently among job shops in metalworking, machining, or in construction, and is characteristic of smaller organizations. Twenty-one of a total of 26 in the sample are companies with less than 500 employees, and over one-third are in companies with less than 50 employees. All but a handful of unskilled men, performing such jobs as materials handling are engaged in the performance of one craft, sometimes with positions for a few apprentices or helpers as the only avenue for upgrading. These organizations tend to compete in the open market for skilled men, with experience the basic criterion for hiring. Only where business is expanding do employers evince an interest in creating training levels. When this happens, educational requirements are high and personal contact is usually the basis of recruitment. In this group are the employers whose staff is trained "elsewhere," and where the pirating of skilled men and moonlighting are common practices in tight labor markets.

In Charlotte, where the ability to stand on this policy is limited by the lack of adequate skilled manpower, a few shops which would ordinarily fall into this tight pattern are more open, particularly when first established, or if they have continued to expand. An air conditioning manufacturer, for example, has an unusually large apprentice program for a relatively small business, and several printing companies are aggressively recruiting trainees, even at Negro schools. In the face of stable or declining employment, such organizations have few openings and are not favorably disposed toward youth, even though some express concern with the high average age of their workmen. A few are still resorting to attempts to attract the trained, European immigrant.

> *Prototype: Tool and Die Shop*
>
> Of 280 employees, 211 are skilled machinists. Twenty men, rated as unskilled or semiskilled, perform custodial work, materials handling, or act as shipping clerks. Aside from the women clerical workers, there are 10 female inspectors. Personal contact is the principal source of new employees, and all must be experienced in specific work. The only formal training is an apprenticeship program for two machinists, controlled by the foreman who selected the trainees among his friends and relatives. It is most unlikely that the unskilled or semiskilled can learn machine work through observation. Upgrading is limited to the possibility of movement from skilled to supervisory work.

Type V—Preponderance of Professional and Technical Workers

The sample includes only eight such organizations, but the number of companies nationally will grow in the coming years. The type includes hospitals, engineering firms, other management services, and research and development organizations. Characteristically, there are few blue-collar workers, and the structure is composed of discontinuous levels, each requiring a specific type of education. Men without technical training or college or professional degrees find little opportunity in such firms, because blue-collar jobs are so few; such skilled men as are needed are hired at the precise level required.

> *Prototype: Engineering Consultants*
>
> Of 2,000 employees, 5 percent are skilled craftsmen in a variety of construction trades. Another 5 percent are engaged either in janitorial work or clerical occupations. The only upgrading offered is for junior draftsmen. Educational requirements are stratified—none for unskilled and semiskilled; high school diploma for skilled; and college for all above this level. Prior experience is generally a hiring requirement.

Residual Companies with Relatively Closed Structures

The variety of industries and policies represented in the sample does not permit the formation of parsimonious categories. As might be expected, 14 companies, while not having an open structure, do not fall neatly into any of the five types just described. Three are textile mills, where women predominate, but are classified as skilled weavers, and therefore do not fit into Type II. Four are male white-collar sales organizations, more like Type V, but not at such a high level. Two tobacco processors have segregated upgrading patterns, with completely different tracks for Negro and white workers. One company, which should fit into the category of open structure discussed below because of its appropriate occupational grouping, has a fixed policy of hiring at precise levels, which does not permit such a classification.

Type VI—Open Structures

The five types outlined above indicate the fundamental limitation of informal training. For companies lacking continuity in occupational structure, informal training cannot bridge existing gaps and develop skilled manpower in the noncollege male work force. Trends in the economy that point toward expansion of white-collar and service occupations, together with increasing demands for technical and professional personnel appear to be creating even more organizations characterized by this discontinuity. The study offers direct evidence on this point—of the 71 companies relatively free from the restrictions of the five major groups already discussed, 52 are in manufacturing where employment is declining.

Fifty-six are among the smaller companies in the sample (under 500 employees), but this inverse correlation to size may be overstated because more of the large organizations are in nonmanufacturing. Among the largest companies in the sample (over 2,500 employees), half fall into the more open classification, because their very size permits a higher degree of job differentiation and training capability. (Those in the largest size group not considered to have open structures are all female-dominated organizations, with the exception of one in Type V, the professional and technical group.) Openness of structure among large employers may be more apparent than real. Smaller employers in the study commented that there are more opportunities to move upward in small organizations because they are less rigid, and that the tendency to departmentalize in a large company results in most workers finding themselves in a slot from which it is hard to progress. It should be recalled that if, as the study indicates, small manufacturing companies have the most open structures, they are at the same time more likely to depend on personal contact for their new employees and are less likely to be involved in community or school-sponsored projects, thus reducing the usefulness of their open structures to disadvantaged youth.

Of the 71 companies with open structures, 29 hired youth without any educational requirement for some jobs, and 28 hired youth only with high school diplomas. These proportions are not significantly different from the total sample. Of those who do hire youth, only 14 are expanding in employment. These comprise nine manufacturers, one government agency, two utility companies, and one transport company.

No one example can serve as a prototype of open structure, because the group includes very large organizations with many job levels and systematized formal training as well as smaller organizations in which no comprehensive hiring or training pattern exists. Some are highly selective at the entry level and offer the possibility of advancement to skilled work, while others are less rigid about entry requirements, with the result that upgrading to the skilled level tends to be more difficult. Some employers feel that the extent and rate of progress is entirely up to the individual, for "the company doesn't go around trying to unearth hidden talent"; while others control selection for promotion, as in the case of a personnel director who feels that an essential quality of a good foreman is the ability to spot those workers with potential and stimulate them to take advantage of training opportunities or shift them into jobs where their skills can be further developed.

The following are some examples of organizations in this group:

Prototype: Selective Entry Level but Open to Those Hired.

A small printing firm, formed nine years ago. Employs 100 people, 80 percent male. New hourly workers are all skilled in printing specialty or are trainees. Apart from clerical jobs, women work in the bindery, work for which the employer feels "it would not be worth paying a man." All training is informal and on the job and it takes at least four years to reach journeyman level. Because of rapid expansion, company is constantly on the lookout for trainees with high literacy and mechanical aptitude, but avoids hiring youth unless the family is known to the employer. Company policy calls for giving trainees a 10-cent hourly increase every month for the first six months as long as they show some progress, without reference to objective standards, and thereafter to give generous increases as they reach higher levels of skill. Upgrading is unlimited. Men have moved from blue-collar to white-collar jobs, although such movement is restricted by the wage differential in favor of production work.

Prototype: Open at Entry Level. Manufacturer of Machinery.

Of 260 employees, 96 percent are males. Females are employed only in clerical work. The concentration in hourly jobs is at the semiskilled level (62 percent), but there is also a reasonable proportion of skilled jobs (24 percent). Applicants must be 18 years old but there are no educational or experience requirements. The basic criterion is "the intelligence discerned at the initial interview." Company reports no difficulty in filling jobs because all are hired at the unskilled level and trained for specific openings. Training is informal and anyone, including those hired as laborers, can be upgraded to semiskilled jobs. If this is the outside limit of their capacity, they will be retained at this level. Some, however, are assigned as helpers to learn skilled work. Promotion to foreman is possible, although openings are infrequent. Above the foreman level are college-trained engineers.

Prototype: Large Male Organization. Manufacturer of Transportation Equipment.

The company has 2,000 different job classifications for which youth are hired, with or without experience and with varying educational background. Formal training is comprehensive, including orientation, skill training, upgrading for higher rated blue-collar jobs, and several apprenticeship programs, as well as technical and supervisory-level training. Through a combination of formal and informal training, an individual worker can move up depending on his potential. Middle managerial and technical jobs are filled by college and engineering graduates.

Prototype: Nonmanufacturing. Supermarket Chain. Has 625 employees, 80 percent of whom are male. While there are no occupations classifiable as skilled in the sense of journeymen, management considers every new employee a candidate for upgrading through the level of store manager. Women are in jobs outside the upgrading pattern. High school diplomas are required for all permanent full-time workers, but new hires are preferably young and inexperienced. No formal training.

CONCLUSION

The attempt made in this chapter to explore the complexities of occupational structure and upgrading policy results only in confirming the difficulties in the way of getting ahead. Policies, whether based on occupational trends or on employer preference, are seldom widely known in the community and, indeed, not always formulated by the company itself. What confronts the youthful jobseeker is a maze in which two seemingly like organizations, or the same job in different organizations, can hold very different opportunities, and require alternative adaptations. The contradictory nature of the world of work is expressed by the paradoxical comment of one employer, who said "Everyone here gets promoted except the janitor—he's too valuable."

Chapter 5

ISSUES IN PREPARING YOUTH FOR WORK

This study of industry's practices and policies relating to employment of youth was undertaken out of concern with the increasing difficulties of making the transition from school to work. The connections between youth and work are growing more tenuous, to the point where becoming a worker is not a gradual process but an abrupt event. Helping out in a family enterprise or participating in the farm chores of another day are no longer a part of the development of the average young person. But even though work is organized on a more formal basis, it is still a hallmark of mature status; and even though work experience is more difficult to come by, the consensus remains that the best preparation for work is work itself. It is this paradox that faces young people who, for whatever reason, are not participating in education beyond the high school and in the prolongation of dependency that this implies.

The study undertaken in the Hartford, Winston-Salem, and Charlotte labor market areas was designed to explore specific aspects of the problem as expressed in employer practices and policies, and to suggest at least the direction that communities might take in seeking solutions. Complex questions of this nature do not lend themselves to simple, single-purpose answers. The study indicates, if nothing else, the large part played by employer option in establishment of hiring and training policies, and the contradictory opinions and advice given by one segment of the community to the other.

In Chapter 2, the barriers to employment of youth were outlined. For girls, the chief requirement for employment is completion of high school with usable clerical skills. Young male high school graduates are less likely to have comparable marketable skills, and together with dropouts, find barriers, not only of educational requirements, but also of age itself, of draft status, and especially of experience.

AGE AND EXPERIENCE

Whatever the mean age of entry into the labor market, under current conditions, the youngest of those seeking employment often lack sufficient education or experience to qualify. If it is indeed true, as most studies suggest, that work skills are learned on the job, it is not surprising that many employers place experience high on the list of qualifications. As one student of the subject puts it:

> In the absence of precise measures of quality, buyers of labor can only look at occupational experience as a rough indication of quality.[1]

For skill development, the chief alternative is to train the inexperienced. But this is a secondary option in American industry, as demonstrated by the relatively small number of companies engaged in formal training. Critics have called into question the assumption that experienced workers come ready-made for a particular job. Dauwalder, for example, cites research showing that during the first six months on a new job employee productivity increases up to 80 percent, but that afterwards a decline sets in. At the end of 7.5 years of performing the same function, a worker regresses to the level of productivity he possessed at six months. Dauwalder concludes from this finding that upgrading training is preferable to insistence on experience.[2]

In spite of such findings, the short-run solution to the need for skill continues to depend on the availability of experienced personnel. If experience is to be acquired "elsewhere," where is "elsewhere"? Where do young entry workers get experience? This question is particularly important because when employers speak of experience it is clear that they mean relevant occupational experience rather than casual employment, particularly for entry into a job with possibilities for upgrading.

The survey furnishes data on employer practices regarding seasonal and part-time help, a chief means of acquisition of experience for young people. Almost 30 percent of the respondents hire no part-time or seasonal employees and an equal number, although utilizing such help, do not hire young people. About 20 percent take on part-time college students, but most of these hires are not considered to be a recruiting device. In other words, college students are hired for a wide range of jobs, most of which have no relevance to their career aspirations. About 23 percent of the employers surveyed hire high school students for part-time or seasonal work, including those with one or two work-study students. The total number of college and high school students is minute in proportion to the work force of the companies involved, and even where they are utilized, the practice makes a very small contribution to the problem of acquisition of experience.

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[1] Fogel, Walter A., "Job-Rate Changes: A Theoretical and Empirical Analysis," *Industrial and Labor Relations Review*, 17 (July 1964), p. 585.

[2] Dauwalder, *op. cit.*, p. 50. See also Mayfield, Harold, "Upgrading the Work Force: Don't Overshoot the Mark," *Management Review*, 53 (June 1964), pp. 37-41.

Young workers have traditionally gained experience and in many cases upgraded their status through frequent job-changing, a pattern that reflects for the individual the relatively unplanned development of the economy. The most stable areas of blue-collar employment are no longer available for occupational experimentation. Turnover in manufacturing, which was about 6 percent a month in the early 1950's is now down to 1 percent.[3] The fact that so few companies in the present study are expanding in employment implies that opportunity in well-organized industry is diminishing for entry workers, and that experience in such industry is difficult to gain on a short-run basis.

Youth, and young men in particular, face two worlds of employment—one in which the entry level looks to upward mobility, at least within the confines of part of the structure(blue-collar, technical, managerial, etc.); and the other, in which they are competing for marginal jobs characterized by low wages and turnover, and from which there may be no exit. Participation in this second world does not furnish the kind of stable work history and relevant experience that employers seem to be seeking.

EMPLOYER ATTITUDES AND OPINIONS ON YOUTH AND THE SCHOOLS

Assuming for the moment that a viable answer to the problem of experience is not easily to be found, what are other possible solutions? In an attempt to assess employer opinions and attitudes and to elicit their ideas as to solutions, each respondent was asked: "How can youth better be prepared for work?" Admittedly, this is a leading question that suggests the existence of difficulties. Even the three respondents who resisted the implication indicated their awareness of it by such comments as: "I don't go for the idea that youth are irresponsible. Adults need to be more understanding." The responses to this question were separated into the general categories appearing in Table 11.

It should be pointed out that attitudes and opinions may be interpreted either as cause or as rationale. In the case of companies that hire no youth or only young female clerical workers, responses are dissociated from actual practice. As citizens, respondents may have opinions on youth, but their opinions are more likely to constitute a rationale than those coming from employers of youth. To the extent companies actually hire youth, their responses are more likely to reflect practical judgments. The data in the study do not lend themselves to analysis of these differences, but even with such

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[3] "Who Are the Unemployables?" *Business Week* (February 9, 1963), p. 68.

TABLE 11

EMPLOYER OPINIONS ON WHAT YOUTH NEED IN PREPARATION FOR WORK

Response	Frequency[a]
Need better attitudes or motivation	100
Need basic education; high school graduation	91
Need specific occupational training	60
No opinion	21
Youth are fine as they are	3

[a] The first three categories of this table represent multiple responses. Those employers having opinions on need often pointed out more than one.

a mixture, it is interesting to note that specific occupational training ranks third, behind better motivation and basic education.

Expression of dissatisfaction with the motivation and attitudes of youth is connected in a number of cases with a generalized antipathy to the young. In addition to the categories in Table 11, the question, "How can youth better be prepared for work?" elicited comments that expressed general approval or dissatisfaction with youth.[4]

Ten respondents expressed positive attitudes toward youth; 129, the overwhelming majority, were confined to specifics of Table 11. The 57 negative answers included comments on the irresponsibility and instability of youth and the high turnover associated with their employment. This judgment was largely confined to young men, since turnover among girls is considered part of the cost of doing business. Comments were also made about youth not wanting to perform certain kinds of work, but this opinion was based on the tenuous evidence that youth do not apply.

It was, however, on attitude that most of the negative comments centered. There were complaints that youth are short-sighted, that they are more interested in immediate rewards than in long-range development. They would rather take the highest paid unskilled job than begin work as a trainee or apprentice at lower wages. Some went further, and characterized youth as "spoiled kids" who do not want to work and are primarily interested in how much money they can make for as little work as possible. "They feel that the world owes them a living." Often, a lack of motivation is attributed to the parents. Said one company official, "Kids nowadays are spoiled," and added, "I know—I spoil my own." This kind of comment was by no means confined to dropouts or to young high school graduates. Many complained about recent college graduates who, they said, have an exaggerated sense of their own worth and are more interested in salaries and benefits than in contributing to the firm.

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[4] If the response was confined to an opinion on motivation, education, or training, it was not judged to be either positive or negative toward youth. The responses discussed here showed definite approbation or antipathy.

Unquestionably, much of this negative feeling represents the typical bias of an older for a younger generation, and in this sense, is probably as old as history. Many of those holding such opinions were concerned with the difficulties facing youth, and expressed a desire to participate in community activities to ameliorate the situation. Just *what* should be done was not so clear.

The antipathy expressed toward college graduates indicates that merely extending the years of schooling does not in itself cause employers to consider new employees to be trained, satisfactory workers. The lengthening of education, therefore, while desirable on other grounds, and specifically the provision of more preemployment training, would hardly be expected to have much effect on employer opinion. Yet, their views on what schools should do to prepare youth for work (Table 12) give first place to occupational training.

While neither the jobs for which youth are actually hired (see Chapter 2) nor opinions as to what youth needs stress preemployment training, employers still look to the schools to provide such training, perhaps because they agree that "employers alone will be unable to solve this problem."[5] When asked what industry could do to help prepare youth for work, approximately one-fourth looked inward and suggested increased on-the-job training. Three-fourths, however, gave answers related to expanded contact with the schools. And the largest single group defined participation as giving advice to the schools. Industry, they said, must tell schools "what we need, so that the schools can handle the training." Among these were small companies prone to point out that "training costs money," and that small companies cannot afford the burden. One large company was opposed to industry "subsidizing needy kids," while another felt that employers should provide information on jobs for "selfish and unselfish reasons."

Among forms of participation other than advice, there were mentioned: financial aid to schools, cooperation with work-study programs or providing part-time jobs for trainees (often a suggestion to others); employing teachers in summer or as part of their training; sending industrial personnel to teach at the school or bringing students to visit or sending speakers to school. Still others thought that industry should make more use of existing

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[5] Testimony of James R. Colvin, Manager, Litton Industries, *Nation's Manpower Revolution*, *op. cit.*, Part 3, p. 724.

TABLE 12

EMPLOYER OPINIONS ON WHAT SCHOOLS CAN DO TO PREPARE YOUTH FOR WORK

Response	Frequency[a]
Need better attitudes or motivation	55
Need basic education; high school graduation	49
Need specific occupational training	97
No opinion	40
Youth are fine as they are	10

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[a] The first three categories of this table represent multiple responses. Those employers having opinions on need often pointed out more than one.

school facilities, "There is no need to set up training programs when there are perfectly good schools."

The stress on school training, which agrees with the views of many educators, may have been overstated because the question of the role of industry was raised immediately after discussion of the school's role. Nevertheless, there remains a noticeable difference in most employers' views of a question depending on whether he answers as an employer or as a citizen, and it is this contradiction that would seem to account for the major discrepancies reported here.

The opinions of employers on what youth need and what schools and industry can do toward better preparation for work reflect several common themes—the need for improved basic education, extended preemployment occupational training, and enhanced motivation. In addition to these, the findings of the study have relevance for proposals to extend on-the-job training, to institute a positive labor market policy, to change the image of service jobs, and to improve the guidance function of schools and employment services. The conclusions reached in the study can be grouped around these issues.

EXTENSION OF BASIC EDUCATION AND PREEMPLOYMENT TRAINING

Employer preference for high school graduates appears to have several elements. The majority of jobs today may require basic literacy, but the demand for diploma-bearing entry workers goes beyond this simple fact. It is related to the concept of "trainability." Artificially high educational requirements are often justified by employers, not because the entry job requires them, but on the grounds that they will be needed later. The assumption that the entry job is only the first step of a ladder is often invalidated by the discontinuities in the occupational structure described in Chapter 4. The overstatement of educational requirements extends to levels beyond the unskilled entry worker—it has often been pointed out, for example, that an engineering degree is not required for many of the actual job functions now being performed.

Even where training is seriously contemplated, the equation of "trainability" with high school graduation may be too simple. One of the few experimental studies in retraining concludes that "the number of employees . . . considered not suitable for any type of retraining is estimated to be very small provided that the training time, when necessary, was increased . . ."[6] The extension of training time referred to was for the purpose of upgrading basic knowledge, but the point is that, while educational background or remediation is essential for training, learning ability is not a major obstacle, and only "about 3 percent of the total population must be considered suited primarily for routine or menial jobs."[7]

Within the organization, what may be more important is the opportunity for upgrading. Without it, there are those who feel that training leads only to dissatisfaction.[8] The answer of some companies has been to change the content and devote the energies of training personnel to human relations programs, the intent of which seems to be to replace employee discontent with "goal-directed behavior."[9]

The persistent tendency is to overspecify qualifications in a surplus labor market, and those who do not meet the norm of high school graduation are suspect. The diploma becomes a screening device, even where the job does not require it. To some people "dropout" has become synonomous with "delinquency." One employer gave as his reasons for not hiring dropouts, "We can't use cowboys." Another said that all the publicity about "problems" with dropouts has made him raise his educational requirements for employment. Many assumed that anyone who wants to can get a high school education. "If they don't care enough to finish school, I don't want them." In this sense, education is related to social acceptability. In addition to general complaints about literacy or mathematical ability, some employers made specific mention of the "many youth" who do not know how to write decent letters or speak on the phone, and a large group stressed the importance of "a good appearance." In the words of one, "All you have to go on in hiring unskilled or inexperienced workers is appearance."

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[6] McNamara, Walter J., "Retraining of Industrial Personnel," *Personnel Psychology*, 16 (Autumn 1963), p. 247.

[7] *Ibid.*, p. 246. For other evidence, see Beaumont, Richard A., and Helfgott, Roy B., *Management, Automation, and People*. New York: Industrial Relations Counselors, 1964, Chapter V.

[8] Bienvenu, Bernard J., "What Kind of Training for Tomorrow?" *Personnel*, 38 (November-December 1961), pp. 8-17.

[9] Phelan, Joseph G., "Reducing Worker Dissatisfaction Through Retraining First-Line Foremen," *Journal of the American Society of Training Directors*, 16 (May 1962), pp. 42-49.

Mayfield suggests that personnel people are unconsciously setting up standards of social acceptability.[10] The setting of such standards, quite apart from whether or not the employee is judged to have potential, may constitute a special burden for disadvantaged or minority youth. When "acceptability" is the chief criterion, prejudice against various groups comes into greater prominence, perhaps accounting for the fact that "even when nonwhite youth have high school diplomas, their unemployment rate is double their white counterparts."[11] And discrimination would seem to be involved in another finding—the significantly lower proportion of nonwhites who have used their training on the job (43 percent), as compared with all workers (60 percent).[12]

We have already commented at length on the opinions of employers concerning preemployment training. In summary, they find it generally desirable, but often without specific reference to their own firms. Much current criticism of retraining programs may be applicable to preemployment training.

> If the intermediate skills are no longer taught by business, a retraining program designed to train the totally unskilled will be a fiasco. These workers will not find jobs unless the unskilled workers already employed are upgraded to semiskilled . . . unless there is better mobility at the middle of the job ladder, a system of short-term training at the bottom will get nowhere.[13]

One additional argument for preemployment training has been advanced by those who hope that better training "will incidentally reduce unemployment by keeping some of them out of the labor market while they are being prepared to take jobs."[14] While it may be necessary to devise means of keeping people out of the labor market, under current conditions specific occupational training may not be the best way to fill their time.

THE ROLE OF FORMAL ON-THE-JOB TRAINING

Those who tend to discount the usefulness of preemployment training are logically the proponents of more formal on-the-job training. In spite of exhortations, such training currently involves only a small minority of the work force of the United States. Furthermore, programs center on managerial and supervisory personnel. To the limited extent that entry workers are involved, training tends to be a response to high turnover rather than to shortage of skilled personnel. It is most frequently offered to those already filling a job for the purpose of obtaining better work performance. In large companies where it is more likely to exist, it has the effect of emphasizing the growing discontinuity between different levels of the work force.

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[10] Mayfield, *op. cit.*, p. 38.

[11] Levine, Louis, "Youth—A New Employment Service Focus,"*Employment Service Review*, 1 (May 1964) p. 2.

[12] U.S. Department of Labor, *Manpower Report of the President, op. cit.*, p. 70.

[13] Froomkin, Joseph, "Jobs, Skills, and Realities," *Columbia University Forum*, 7 (Spring 1964), p. 32.

[14] "Five Ways to Cut Unemployment," *Nation's Business*, 52 (July 1964) p. 31.

From the point of view of management, the most likely impetus to the establishment of formal training would seem to be a shortage of skilled workers. But as this and other studies have demonstrated, training is only one possible response to such shortages. Many employers prefer to raid other companies or to deskill certain operations using the most productive workers as lead men or supervisors. From the point of view of untrained entry workers, the latter practice might offer some hope if it were combined with training, rather than being used as a substitute for it. As others have pointed out, reliance on short-run solutions to fill demands for skill runs the risk under current conditions of becoming long-run policy.

Much of the debate on training has centered on apprenticeship, probably because of its long history and because it is the most easily identified of training forms. Here, too, there are data to show that those who already have some skill are the most likely to receive additional training. A Michigan study found that an important criterion for apprentice selection is the possession of manipulative skills sufficient to be immediately productive.[15] If this is so, the common notion that apprenticeship is unattractive because of the small differential in wages between finished apprentices and other semiskilled and skilled workers takes on a somewhat different meaning. A man in his early twenties who has some manipulative skill and can make a living by using it, is clearly not the best potential apprentice in terms of motivation. Yet the average age of apprentices now in training is twenty-six.

The problem of recruiting suitable apprentices is partly a function of competing educational methods. Since those able to qualify have higher education as an alternative, the most obvious solution is to recruit from different groups than heretofore. Apprenticeship candidates who cannot meet the educational and other requirements might be provided with remedial work that would bring them up to appropriate standards. As several of those interviewed recognize, such a preapprenticeship program would be an ideal use of Manpower Development and Training Act funds. This approach has been put into practice in Hartford, where a trade association of small machine shops is sponsoring a one-year MDTA training program for 15 high school dropouts. The candidates spent the first eight weeks in related instruction with a single instructor who also acted as a counselor. When they began their on-the-job training, the instructor spent successive half-days in each of the five shops where trainees have been placed. The first year of this apprenticeship program is being financed by MDTA funds. Since the apprentices will be productive by the end of the first year, the employers in the program will pick up the cost at that time. The program is only in its initial stages, but its sponsors report that the close relationship of the instructor with a small group and the intensive remedial work at the beginning have already proved their worth.[16]

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[15] Hagemeyer, Richard H. "Apprentice Selection Practices in Michigan's Manufacturing Industry," *Journal of the American Society of Training Directors*, 16 (February 1962), pp. 28 ff.

While American proponents of apprenticeship argue that it turns out a worker better trained to meet changes in production methods, European experts have diametrically opposed views. They are critical of apprenticeship because it is too long, too dependent on practical training, and insufficiently theoretical. The craft structure is considered too narrow for rapidly changing technology; training is often too specialized in small companies. Opposition to apprenticeship has reached the point where formal classroom training of less than a year is supplanting on-the-job training in most Western European companies at the present time.

The European experience can only be understood in relationship to broader labor market policies. European plans for training are part of a much larger effort which includes the gathering of accurate labor market information, guidance and counseling, retraining, incentives for geographic mobility of labor and industry, and general planning for full employment without inflation.[17]

In the absence of such national policies, Americans tend to *ad hoc* solutions made by individual employers as the problem presents itself and by each school system to the best of its ability. Business decisions made in this decentralized fashion are generally assumed to rest on inexorable economic necessity. The findings of the study call this assumption into serious question. Only size distinguishes companies that offer formal training from those that do not. But even here, as with other variables, companies following opposite policies stay in business and apparently prosper. The differences in options exercised by similarly situated firms indicate the large margin for error. If these were true *economic* variables, one or the other option would destroy the viability of those businesses making an incorrect choice. If, therefore, only short-run considerations are taken into account, business is obviously making do. Long-term development of the labor force is another matter. It is easier to project on the basis of agreed-upon goals than it is to rely on the clouded crystal ball of individual prediction. In the absence of such goals we will continue to insist on maximum worker flexibility and make frequent changes in the projections for specific categories of workers.[18]

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[16] Early signs of success were responsible for a second program of this type designed for the training of chefs in Hartford.

[17] For a review of European trends, see Green, Alfred L., *A Study of Appraisal of Manpower Programs as Related to a Policy of Full Employment in France, Great Britain, The Netherlands, and Sweden.* New York State Department of Labor, September 1963.

THE IMAGE OF SERVICE JOBS

As a subsidiary issue, even critics of public programs feel that subsidy for service industries in the form of training is a warranted intervention.[19] Such views coincide with the opinions of those who see expanding services as a sponge to soak up unemployment. The fact that training is desirable to improve the quality of service, however, runs counter to the low wages and status afforded by such employment. The raising of training standards has generally been accompanied by professionalization, certification, and improvement in wages and working conditions. The dissatisfaction of consumers, employers, and auto mechanics alike, documented in Chapter 5, will not be overcome without improved training. But training, as well as the goal of better service, depends on a more rational wage scale. Furthermore, if a semblance of the American promise of upward mobility is to be maintained, there must be some way of establishing a continuum of skill; provision of training at each stage; and administration of the continuum in as flexible a manner as possible.

The question is clearly one of priorities. If communities, or the Nation as a whole, come to the consensus that better service is needed in various fields, improvements will have to be paid for. With such consensus, the Nation is presumably rich enough to afford the kinds of reallocation necessary to achieve these goals. Short of such reordering of wage and occupational structures, improvements can be made at the margins, but there is no guarantee that small accretions will result in significant overall changes.

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[18] See, for example, the change in projected 10-year growth in new graduate engineer hires from 110.4 percent in 1962 to 65.2 percent in 1964. Engineering Manpower Commission of Engineers Joint Council, *Demand for Engineers, Physical Scientists, and Technicians—1964.* New York: The Council, 1964, p. 15.

[19] See Froomkin, *op. cit.*

The survey brought to light many complaints about the shortsightedness of young entry workers. While evidence may abound for this conclusion, it is in many ways a reflection of the larger society. Youth are asked to be planful in a country where planning has a low-order priority, particularly in economic matters. Even on an individual enterprise basis, the planning activities of large-scale organizations are generally confined to product and market development with little attention to the implications for manpower questions or for the community at large. If employers see the future only dimly, much of the advice they offer to schools and to youth is of limited help for long-range planning. Their immediate interests and the developmental needs of youth may diverge considerably.

Given the variety of interests at play and the absence of consensus on long-range goals, useful implications of the present study center mainly on the margins of the youth employment problem. Some possible interventions seem unlikely to occur on a large scale. Employers, for example, could spread opportunity more widely by realistic lowering of standards for unskilled entry jobs. A few actually have done so, as in the case of one factory manager in the survey who hired several graduates of an MDTA training program. When he found one who was deficient in basic mathematics, he undertook, with gratifying results, an informal tutoring course during lunch hours. Such manifestations of individual good will could be systematized, but to do so would require a tolerance for ostensible inefficiency that is seldom accorded to unskilled entry workers.

School systems could unquestionably do a better job of preparation at all levels. No one can estimate the extent to which unemployment has structural roots when 20 percent of the top quarter of each year's graduating class does not go to college.[20] As for specific occupational training, it seems clearly to be moving to the post high school years, with an emphasis on technical subjects. A parallel development seems likely to be a more formal structure for occupations now loosely defined, together with higher entry wages. On-the-job training, at least of an informal nature, will continue to be necessary, particularly since differences in organizational patterns are reflected in work functions. Schools and other public agencies might find it more useful to provide technical assistance to employers engaged in training than to set up special courses in the schools or to train employees on the job. Classroom training is limited to efficient-sized groups, and in an era in which companies need only a few highly specialized new workers at any one time, it is not always a method of choice for upgrading employed workers.

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[20] Flanagan, John C., "Project Talent: Some Early Findings from a Nationwide Survey," *National Education Association Journal*, 53 (January 1964), pp. 8-10.

In spite of the complexities and confusions, or perhaps because of them, most observers agree that there is room for improvement in school guidance and in the placement and counseling activities of the public employment service. This kind of intervention becomes more necessary as the role of parents in occupational choice diminishes. Occupations are less often handed down from one generation to another, and many new ones come into being each year. Organized methods of transmitting occupational information are needed to replace haphazard impressions, and also to enhance the national effort to equalize opportunity.

Here the public employment service has a crucial role. It is still too parochial in its outlook, in spite of efforts to clear job orders between cities. More important is its limited impact on the job market because of continuing reliance on personal contact for gaining employment. It is held in low esteem by many employers who characteristically call it the "unemployment office," but who are often unwilling to support expansion or improvement of its services. Spokesmen for a positive labor market policy see the employment service as an agency centered on preventing unemployment by anticipating needs, directing and encouraging workers to shift either their geographical location or their skills or both, rather than as an agency established to serve those who are in difficulty after the fact.[21] The service is moving slowly in this direction, but progress is impeded not only by inadequate staffing but by difficulty in gathering needed information.

The employment service has a new awareness of its obligations to youth. For many years, it has served only high school seniors or those who have come voluntarily to the local office. Youth and particularly dropouts, who have never been employed and are not eligible for unemployment compensation, have been least likely to select themselves for service.

> Many of the groups we must now try to reach are no more likely to seek out the local office than to return to the school they left prematurely. . . . Those most in need of assistance may be the least likely to come to the office. . . . It is possible we will have to enlist the cooperation of social workers and various types of neighborhood and

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[21] See, for example, Bakke, E. Wight, *A Positive Labor Market Policy*. Columbus, Ohio: Charles E. Merrill, 1963.

> community groups who have preceded us into this complex area of social and economic rehabilitation.[22]

Schools, too, feel a responsibility to provide better guidance for the noncollege-bound. All the communities surveyed are disenchanted with such traditional devices as "career days" for the transmittal of occupational information. More important than the means of transmittal, the present study raises serious questions as to the quality of information actually available. Many academicians have complained about the lack of data on which to base a rational manpower policy. On the local level, the advice given to the employment service by Haber and Kruger applies to all institutions having an impact on the occupational choices of youth.

> . . . It needs to know more about the structure of an employer's organization, entry points, channels and procedures of promotion and transfer, training practices, and other factors related to manpower development and utilization within a firm.[23]

The present study focused on precisely these kinds of data. From the material presented in Chapter 4, it is clear that there is less continuity in white-collar than in blue-collar dominated firms; and that manufacturing still offers more room for advancement than the service industries, where many job classifications are entirely unconnected. Unique businesses are more open in their structure, but here the worker must assume the risk of acquiring nontransferable skills. Large organizations appear more open, perhaps because of their numerous and varied job classifications, but the gaps that exist between levels of occupation limit advancement in the long run.

The actual, if not the necessary, impact of technological change has been to widen the distance between levels in most organizations. Moving up the ladder becomes more difficult as hiring requirements become more specific. There is emerging a kind of double standard in employment. Large and medium-sized companies are willing to hire recent college graduates, even while considering them untrained and in some cases unreasonably demanding, and invest in their development. Together with small companies, however, they are far less willing to undertake long-range development of entry workers in blue-collar and low-level service occupations. Here too preemployment training is for the most part irrelevant in the eyes of the employer, but higher educational levels are considered evidence of the young worker's ability to meet new demands. The fact that so many employers still advise schools to offer more occupational training can only be attributed to lack of anything else to advise. Where they prefer experience, they seem likely to fall back on preemployment training as a poor second best.

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[22] Levine, Louis, *op. cit.*, p. 4.

[23] Haber, William, and Kruger, Daniel H., *The Role of the United States Employment Service in a Changing Economy.* Kalamazoo, Michigan: The W. E. Upjohn Institute for Employment Research, 1964, p. 120.

Whatever the particulars of organizational type (as described in Chapter 4), the study does not give a statistically reliable picture of the relative proportions of each type in the communities surveyed. Even with a sample more representative of local industrial distribution, the impact of managerial decisions would make precise statistical judgments impossible. It is knowledge of policy that remains crucial after organizational patterns have been determined, but both have significance for the plans of entry workers. An employment counselor who really knows his community should be able to point out, on the basis of precise information, that the existence of formal training in Company X is no guarantee of upgrading; it may be offered only on an *ad hoc* basis. On the other hand, taking advantage of Company Y's open occupational structure depends on meeting fairly stiff entry requirements. He might also know that in Company Z, entry jobs that afford training are available only on unpopular shifts, and he might therefore make the effort to convince a young person of the long-range desirability of taking such a job.

It may well be that success in placement depends precisely on this kind of knowledge, often possessed by counselors who may never have attempted to systematize it. Information must, however, be gathered in a systematic way if it is to be readily transferable; and for this task, the lines of communication between employers and youth-serving agencies must constantly be kept open. Pleas for this kind of cooperation are commonplace, but too often the meeting of minds occurs around peripheral issues. One of the chief hazards in the usual advisory committee arrangement is that industry representatives either speak as citizens, instead of in their role as employers, or generalize from the structure and policies of their own companies to others in the field. Clearly, neither of these positions is helpful. One way to obviate this kind of difficulty would be for employers in similar establishments to pool their knowledge of hiring and training practices. Prototypes for such exchanges already exist in organizations of personnel men, training directors, and through Chamber of Commerce committees. Since there are often gaps between official policies and actual practice, whoever takes on this assignment must be fully aware of what takes place at the operational level in the company, and must be willing to share his knowledge with the youth-serving agencies of the community.

It may be that such regular exchanges would also lead to some reexamination of practices and policies, purely from the point of view of the business operation itself. For example, a question that might be explored is whether current methods of costing truly reflect the price paid by the firm for turnover and whether this cost is actually less than the establishment of connections between job levels that would permit a degree of upgrading. Or, the possibility that small firms who complain about the lack of trainability of their new recruits could attract more likely prospects through raising the entry wage level and thereby obviating the necessity of paying more than the going rate for experienced, skilled workers who have been developed by others.

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The problems that youth face in the labor market stem from two sets of issues. This study has not explored the more basic questions of economic growth and development and the effects of large-scale policy decisions on the creation of jobs. It may well be that the continuing prosperity of the private sector will not provide employment opportunity for all who wish to work. In that case, a large number of those who are "unemployable" are likely to be young people with marginal work histories.

Disadvantage compounds itself. Those who do not readily move from school to work will find the transition more difficult as time goes on. Those who do not find an entry point that leads to skill acquisition are equally unlikely to find alternate routes. Those who do not enter at the trainee level are unlikely in the future to be trained. Youth employment programs now being carried on in many communities put strong emphasis on rehabilitation. For the most part, their goal is to make young workers employable by making them more acceptable in appearance and in willingness to work. They operate on the assumption that jobs will be available for those who successfully complete the program. To the extent that this assumption is invalid, and to the extent that minimal rehabilitation is not enough, their residual effect is to keep a certain number of youth out of the labor market for varying periods of time.

Failing an expansion of employment opportunity commensurate with population increase, communities may find themselves obliged to offer more meaningful substitutes for work than present programs envisage. In the meantime, the extent of the problem of unemployed youth would be more readily determined if an effort were made to put existing facilities and resources to better use.

When one person is sick, we can limit our attack to individual treatment; when many are ill, we begin to look for environmental causes and cures that will halt the epidemic. The communities included in this survey are among the more fortunate in America, and their youth are not in as dire straits as the youth of Apalachia or of big-city slums. But the differences are only quantitative; in all American communities there is now a group outside the main stream, and the danger is that it will grow larger everywhere if positive steps are not taken to avert it.

Appendix I

GUIDE FOR SEMISTRUCTURED EMPLOYER INTERVIEWS

General Information
- Name and address of company
- Name and title of person interviewed
- Type of business or industry
- Product or service
- How long has the company been in the area?
- Is it a local company or a branch or headquarters of a national organization?

Composition of the Work Force
- Total number of employees at present
  - Number of male and female employees
  - Percent of hourly and salaried workers
  - Average for 1963
- Job description and levels
  - Examples of jobs employer considers skilled, semiskilled, unskilled
  - Classification of foremen
  - Numbers of male and female employees in each of the following categories: managerial and professional, foremen, sales, clerical, skilled, semiskilled, unskilled

Hiring Practices and Policies
- Who establishes the requirements for hiring?
  - Who does the screening of applicants?
  - Who makes the final hiring decision?
- Reasons for employing women in production and maintenance jobs
- Number of openings for blue-collar or male clerical workers in 1963
  - Type of openings: by job title and category (skilled, semiskilled, unskilled)
  - To what are these openings attributed?
  - Difficulty filling any particular jobs: by title and category
  - What jobs remain unfilled?
- Use of seasonal or part-time help (including students)
  - Is this a recruiting device for full-time workers?

Are new employees recruited within or outside of local area?

Rank in order of importance methods and agencies used to get new employees

- What has been your experience with: the public employment service, the State-sponsored vocational schools, social agencies, government programs?

Selection Criteria

In practice, do you hire people under the age of 22?

- Is draft status a factor in hiring?
- How many people under 22 have been hired in the last 5 years?
- For what jobs did you hire these youth? Job titles and categories

For which jobs do you require a high school diploma or a special course?

- For which jobs can dropouts qualify?

Do you use tests for selection purposes? Specify tests and for what jobs

Do you require prior experience?

- For what jobs?
- Must experience be relevant or general?

Formal Training (Defined by interviewer as: Any training where a specific group of people are called together to cover a specifically designed course of study given by a specifically chosen person. The most important aspect is that there be a prearranged, systematic procedure.)

Is formal training, as defined, offered by the company for nonmanagerial, nontechnical personnel?

For Each Formal Training Program

Job title and description

Eligibility: age, education, sex, employment status; how selected; by whom

Length of program; number of hours a week

Is training given continuously or on an *ad hoc* basis?

How many are in training now? How many were trained in 1963?

Does training take place on company time? In the plant? Outside facilities?

Do trainees tend to stay longer than people hired with experience?

Does completion of the program lead to a higher-level program or to a higher-skill rating?

For Each Apprenticeship Program

- In addition to the above questions:
  - Is the agreement unique to this company or standard for the industry?
  - Ratio of apprentices to journeymen; actual and maximum allowed
  - Time devoted to related training; hours a week; day or evening
    - Is credit allowed for experience or trade school attendance?
    - Where is related training given?
    - Is it paid time?
  - Dropout rate over any given period
  - Employer's opinion of apprenticeship as a training method

For Each Outside Training Program (tuition refund, work-study, trade school, etc.)

- Type of program offered
- Eligibility: age, education, employment status, sex; how selected; by whom
- What type of worker takes advantage of the program?
- Duration of program
  - Number of hours per week; number of credits or courses per semester
- Is it offered continuously or on an *ad hoc* basis?
- How many are participating now? How many participated in 1963?
- Where does the training take place?
  - On company time?
  - How much does it cost and who pays?
- Do participants stay longer than those not taking this training?
- Is participation related to promotional opportunity? How?

Informal Training (on the job)

- How do unskilled entry workers learn their jobs?
- Can an unskilled employee be upgraded to a semiskilled worker? Describe the steps and the training given
- Can a semiskilled employee be upgraded to a skilled worker? Describe the steps and the training given
- Can a skilled worker become a foreman or first-line supervisor?
- Can foremen move into white-collar, managerial, or professional positions?

Do you upgrade from within the company and replace workers at the less skilled levels, or do you hire at all levels?

What specific jobs do you tend to fill from outside?

How many workers were promoted from one level to another in 1963?

Was this pattern typical?

Have there been recent changes in promotion patterns or will there be in the near future?

General Opinions and Attitudes

In the past few years, have you established any special training programs because of automation? Because of integration?

What is your opinion as to the future trends in your company and industry as far as manpower needs are concerned?

In what ways do young people need to be better prepared for work?

What can the schools do to improve their preemployment training?

What role can industry play?

Have the local schools ever asked for your help? Describe

Do members of your firm serve on industry advisory committees to schools, training institutions, special training projects, etc.?

Would you care to make any additional comments on youth, training, hiring, etc.

Appendix II

SELECTED BIBLIOGRAPHY OF RECENT LITERATURE ON TRAINING IN INDUSTRY

This bibliography includes significant research studies reported since 1959, with the focus on training programs other than apprenticeship.

Belman, Harry F. and Bliek, John E., "The Nature of Current Training Function Activities," *Journal of the American Society of Training Directors,* 15 (February 1961), pp. 31-46.

A survey of the training offerings of 240 companies indicating that skill training is demanded by employees more frequently than offered.

Benson, Charles S. and Lohnes, Paul R., "Public Education and the Development of Work Skills," *Harvard Educational Review,* 29 (Spring 1959), pp. 218-239.

A study of educational requirements preferred by employers in durable manufacturing. Half preferred academic high school and half favored vocational high school.

Benson, Charles S. and Lohnes, Paul R., "Skills Requirements and Industrial Training in Durable Goods Manufacturing," *Industrial and Labor Relations Review,* 12 (July 1959), pp. 540-553.

Survey of a sample of durable goods manufacturers in Massachusetts focused on the utilization of skills and types of skill development programs. Findings indicated a positive correlation between the percentage of skilled workers in the work force and the existence of formal training, but that only a minority of plants reporting shortages of skilled workers instituted formal training.

Black, James Menzies, *Developing Competent Subordinates.* New York: American Management Association, 1961.

A textbook for training personnel.

Bureau of National Affairs, *Training Rank and File Employees.* Personnel Policies Forum, Survey No. 66. Washington, D.C.: The Bureau, 1962.

A study of training of nonsupervisory workers in 150 companies. Training, in this instance, covered both formal and informal skill training with the exception of apprenticeship. Included in the discussion are methods of training used, reasons for these methods, and techniques for evaluation of training.

Dauwalder, Donald D., *Education and Training for Technical Occupations*. Los Angeles City Junior College District, 1961.

A study of industrial and school training in the San Fernando Valley. Particular emphasis is given to training needs of technicians and related occupations.

DePhillips, Frank A., Berliner, William B., and Cribbin, James J., *Management of Training Programs*. Homewood, Illinois: Richard D. Erwin, Inc., 1960.

A history of formal training in industry and a text on methods and theory of training.

Estle, Edwin F., "Industrial Investment in Manpower," *New England Business Review*, Federal Reserve Bank of Boston (February 1964), pp. 1-5.

A survey of training in 210 New England manufacturing firms. Includes analysis of extent of training, type of training and relative average costs per worker of different types of training.

Foltman, Felician F., "An Assessment of Apprenticeship: I—Apprenticeship and Skill Training—A Trial Balance," *Monthly Labor Review*, 87 (January 1964), pp. 28-35.

A discussion of employer and union attitudes toward apprenticeship. Proposals to strengthen the role of apprenticeship.

Green, Alfred L., "A Study of Appraisal of Manpower Programs as Related to a Policy of Full Employment in France, Great Britain, The Netherlands, and Sweden." New York State Department of Labor, September 1963.

Analysis of European programs of training related to public employment services and incentives for industrial and geographical mobility for both employers and workers.

Groom, Phyllis, "An Assessment of Apprenticeship: III—Statistics on Apprenticeship and Their Limitations," *Monthly Labor Review*, 87 (April 1964), pp. 391-395.

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